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(FILE 'MEDLINE, HCAPLUS, BIOSIS, EMBASE, WPIDS, SCISEARCH, AGRICOLA'  
ENTERED AT 15:40:59 ON 15 APR 2004)

L19 67 DUP REM L18 (17 DUPLICATES REMOVED)

=&gt; d que 119

L1 507 SEA PATHAK C?/AU  
L2 20 SEA L1 AND POLYMER?(5A) CROSSLINK?  
L3 0 SEA L2 AND GLYCOLID?  
L4 6 SEA L1 AND GLYCOLID?  
L5 8 SEA L1 AND LACTID?  
L6 5 SEA L1 AND POLYALKYLENE(5A) OXID?  
L7 31 SEA (L2 OR L3 OR L4 OR L5 OR L6)  
L8 4521 SEA POLYALKYLENE(A) OXID?  
L9 44 SEA L8 AND (GLYCOLID? OR LACTID? OR CAPROLACTON? OR DIOXANON?  
OR TRIMETHYLEN?(2A) CARBONATE?)  
L10 1 SEA L8 AND POLYHYDROXYACID?  
L11 1 SEA L8 AND POLYORTHOCARBONATE?  
L12 23 SEA L8 AND POLYANHYDRID?  
L13 5 SEA L12 AND CROSSLINK?  
L14 4 SEA L13 AND BIO?  
L15 8 SEA L8 AND POLYLACTON?  
L16 4 SEA L15 AND BIO?  
L17 5 SEA L8 AND (POLYAMINO? OR POLYPHOSPHAT?) AND CROSSLINK?  
L18 84 SEA L7 OR (L9 OR L10 OR L11) OR L14 OR L16 OR L17  
L19 67 DUP REM L18 (17 DUPLICATES REMOVED)

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L19 ANSWER 1 OF 67 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:42813 HCAPLUS

DOCUMENT NUMBER: 138:90277

TITLE: Biocompatible **crosslinked polymers**  
, their preparation, and coating useINVENTOR(S): **Pathak, Chandrashekhar P.**; Sawhney,  
Amarpreet S.; Edelman, Peter G.

PATENT ASSIGNEE(S): Incept LLC, USA

SOURCE: U.S. Pat. Appl. Publ., 33 pp., Cont.-in-part of U. S.  
Ser. No. 454,900.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 4

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003012734	A1	20030116	US 2001-10715	20011109
WO 9812274	A1	19980326	WO 1997-US16897	19970922
W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			

CA 2340381 AA 20000224 CA 1999-2340381 19990813  
 WO 2000009199 A1 20000224 WO 1999-US18446 19990813  
 W: AU, CA, JP  
 RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,  
 PT, SE  
 AU 9955608 A1 20000306 AU 1999-55608 19990813  
 EP 1104324 A1 20010606 EP 1999-942172 19990813  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, FI  
 US 6566406 B1 20030520 US 1999-454900 19991203  
 US 6673093 B1 20040106 US 2000-513491 20000421  
 US 2003108511 A1 20030612 US 2002-319308 20021213  
 PRIORITY APPLN. INFO.: US 1996-26526P P 19960923  
 US 1997-39904P P 19970304  
 US 1997-40417P P 19970313  
 WO 1997-US16897 W 19970922  
 US 1998-134198 A 19980814  
 US 1998-110849P P 19981204  
 US 1999-147897 A2 19990830  
 US 1999-454900 A2 19991203  
 US 1998-108273P P 19981112  
 WO 1999-US18446 W 19990813  
 US 2000-513491 A2 20000421  
 US 2001-10715 A2 20011109  
 US 2002-359236P P 20020220

AB Biocompatible **crosslinked polymers** are formed from water-soluble precursors having electrophilic and nucleophilic functional groups capable of reacting and crosslinking in situ. The crosslinking reactions may be carried out in situ on organs or tissues or outside the body. Applications for such biocompatible **crosslinked polymers** and their precursors include controlled delivery of drugs, prevention of post-operative adhesions, coating of medical devices such as vascular grafts, wound dressings, and surgical sealants. Visualization aids, dyes, are incorporated into aqueous coating compns. with the biodegradable hydrogel material.

L19 ANSWER 2 OF 67 HCAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 2003:390847 HCAPLUS  
 DOCUMENT NUMBER: 138:385952  
 TITLE: Biocompatible **crosslinked polymers**  
 , hydrogels, their preparation, and use for tissue  
 adhesion prevention  
 INVENTOR(S): **Pathak, Chandrashekhar P.**; Sawhney,  
 Amarpreet S.; Edelman, Peter G.  
 PATENT ASSIGNEE(S): Incept LLC, USA  
 SOURCE: U.S., 27 pp., Cont.-in-part of U.S. Provisional Ser.  
 No. 110,849.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 4  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6566406	B1	20030520	US 1999-454900	19991203
US 2003012734	A1	20030116	US 2001-10715	20011109
US 2003108511	A1	20030612	US 2002-319308	20021213
US 2004023842	A1	20040205	US 2003-373269	20030224

US 2003162841	A1	20030828	US 2003-373939	20030225
PRIORITY APPLN. INFO.:			US 1998-110849P	P 19981204
			US 1996-26526P	P 19960923
			US 1997-39904P	P 19970304
			US 1997-40417P	P 19970313
			WO 1997-US16897	W 19970922
			US 1998-134198	A 19980814
			US 1999-147897	A2 19990830
			US 1999-454900	A2 19991203
			US 2000-513491	A2 20000421
			US 2001-10715	A2 20011109
			US 2002-359236P	P 20020220

AB The biocompatible **crosslinked polymers** are formed from water-soluble precursors having electrophilic and nucleophilic groups capable of reacting and crosslinking in situ. Preparing a biocompatible **crosslinked polymer** hydrogel comprises (1) providing a biocompatible small mol. crosslinker with a mol. weight  $\leq 2000$ , the crosslinker having n crosslinker functional groups, where  $n \geq 2$ , and where the crosslinker functional groups are either electrophilic or nucleophilic, (2) providing a synthetic biocompatible functional polymer with a mol. weight .gtorsim.7 times than the **crosslinker**, the functional **polymer** having m functional groups, where  $m \geq 2$  and the sum  $n + m \geq 5$ , and where the functional polymer functional groups are nucleophilic if the crosslinker functional groups are electrophilic, and vice versa, and (3) combining the **crosslinker** and functional **polymer** to react the **crosslinker** functional groups to form a hydrogel for which the **crosslinked polymer** gel time  $< 60$  s. The crosslinking reactions may be carried out in situ on organs or tissues or outside the body. Applications for such biocompatible **crosslinked polymers** and their precursors include controlled delivery of drugs, prevention of post-operative adhesions, coating of medical devices such as vascular grafts, wound dressings, and surgical sealants.

REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 3 OF 67 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN  
 ACCESSION NUMBER: 2003:523297 BIOSIS  
 DOCUMENT NUMBER: PREV200300523877  
 TITLE: Coating substrates by polymerizing macromers having free radical-polymerizable substituents.  
 AUTHOR(S): Hubbell, Jeffrey A. [Inventor, Reprint Author];  
 Pathak, Chandrashekhar P. [Inventor]; Sawhney, Amarpreet S. [Inventor]; Desai, Neil P. [Inventor]; Hill, Jennifer L. [Inventor]; Hossainy, Syed F. A. [Inventor]  
 CORPORATE SOURCE: Austin, TX, USA  
 ASSIGNEE: The Board of Regents, University of Texas System  
 PATENT INFORMATION: US 6632446 October 14, 2003  
 SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (Oct 14 2003) Vol. 1275, No. 2.  
<http://www.uspto.gov/web/menu/patdata.html>. e-file.  
 ISSN: 0098-1133 (ISSN print).  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 ENTRY DATE: Entered STN: 5 Nov 2003  
 Last Updated on STN: 5 Nov 2003

AB Water soluble macromers are modified by addition of free radical polymerizable groups, such as those containing a carbon-carbon double or triple bond, which can be polymerized under mild conditions to encapsulate

tissues, cells, or biologically active materials. The polymeric materials are particularly useful as tissue adhesives, coatings for tissue lumens including blood vessels, coatings for cells such as islets of Langerhans, and coatings, plugs, supports or substrates for contact with biological materials such as the body, and as drug delivery devices for biologically active molecules. A medical condition can be treated by applying to a site a polymerization initiator, then applying a substantially water-soluble, degradable macromer of at least 200 mw and having at least two **crosslinkable** substituents, and **polymerizing** the macromer to form a polymeric material that can adhere two surfaces together, be an immunoisolation barrier, prevent adhesion of the site to another surface, or contain a biologically active material for delivery or to provide the polymeric material with resistance to bacterial growth or a decrease in inflammatory response. A biocompatible substrate can be coated by applying a mixture of the macromer of at least 400 mw and an initiator and polymerizing. The initiator may be applied to the substrate before the macromer.

L19 ANSWER 4 OF 67 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN  
 ACCESSION NUMBER: 2003:408722 BIOSIS  
 DOCUMENT NUMBER: PREV200300408722  
 TITLE: Photopolymerizable biodegradable hydrogels as tissue contacting materials and controlled-release carriers.  
 AUTHOR(S): Hubbell, Jeffrey A. [Inventor, Reprint Author];  
**Pathak, Chandrashekhar P.** [Inventor]; Sawhney, Amarpreet S. [Inventor]; Desai, Neil P. [Inventor]; Hill, Jennifer L. [Inventor]  
 CORPORATE SOURCE: Zumikon, Switzerland  
 ASSIGNEE: Board of Regents, The University of Texas System  
 PATENT INFORMATION: US 6602975 August 05, 2003  
 SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (Aug 5 2003) Vol. 1273, No. 1.  
<http://www.uspto.gov/web/menu/patdata.html>. e-file.  
 ISSN: 0098-1133 (ISSN print).  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 ENTRY DATE: Entered STN: 3 Sep 2003  
 Last Updated on STN: 3 Sep 2003

AB Hydrogels of **polymerized** and **crosslinked** macromers comprising hydrophilic oligomers having biodegradable monomeric or oligomeric extensions, which biodegradable extensions are terminated on free ends with end cap monomers or oligomers capable of polymerization and cross linking are described. The hydrophilic core itself may be degradable, thus combining the core and extension functions. Macromers are polymerized using free radical initiators under the influence of long wavelength ultraviolet light, visible light excitation or thermal energy. Biodegradation occurs at the linkages within the extension oligomers and results in fragments which are non-toxic and easily removed from the body. Preferred applications for the hydrogels include prevention of adhesion formation after surgical procedures, controlled release of drugs and other bioactive species, temporary protection or separation of tissue surfaces, adhering of sealing tissues together, and preventing the attachment of cells to tissue surfaces.

L19 ANSWER 5 OF 67 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN  
 ACCESSION NUMBER: 2004-011656 [01] WPIDS  
 DOC. NO. NON-CPI: N2004-008580  
 DOC. NO. CPI: C2004-003330  
 TITLE: Production of nanoporous silica dielectric film for use



in semiconductor device, by coating substrate with composition comprising silicon containing pre-polymer, porogen and metal-ion-free catalyst, e.g. tetramethylammonium acetate.

DERWENT CLASS: A85 E19 G02 L03 U11  
 INVENTOR(S): DENG, E; LEUNG, R Y; LU, V Y; XIE, S  
 PATENT ASSIGNEE(S): (HONE) HONEYWELL INT INC  
 COUNTRY COUNT: 96  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2003088344	A1	20031023	(200401)*	EN	48
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZM ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW					

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2003088344	A1	WO 2002-US15256	20020410

PRIORITY APPLN. INFO: WO 2002-US15256 20020410

AN 2004-011656 [01] WPIDS

AB WO2003088344 A UPAB: 20040102

NOVELTY - A nanoporous silica dielectric film is produced by preparing a composition comprising silicon containing pre-polymer, porogen, and metal-ion-free catalyst consisting of onium compounds and nucleophiles; coating a substrate with the composition to form a film; crosslinking the composition to produce a gelled film; and heating the gelled film to remove all of the porogen.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:

(1) a nanoporous film produced by the above method; and

(2) a semiconductor device, e.g. integrated circuit, comprising a nanoporous dielectric film.

USE - The invention is used for producing a nanoporous silica dielectric film used in semiconductor device, e.g. integrated circuit (claimed).

ADVANTAGE - By use of onium ions or nucleophiles, the formation of porous silica network at lower temperature in low metal spin-on formulation can be facilitated. The produced film has improved mechanical strength that can withstand the further processing steps required to prepare a semiconductor device on the treated substrate, and has low and stable dielectric constant. This is achieved without the need for further surface modification steps to render the surface hydrophobic.

DESCRIPTION OF DRAWING(S) - The figure shows FTIR spectra for films where silanol content is in the decreasing order.

Dwg.1/1

L19 ANSWER 6 OF 67 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN

ACCESSION NUMBER: 2003-903206 [82] WPIDS

DOC. NO. NON-CPI: N2003-721249

DOC. NO. CPI: C2003-256679

TITLE: Production of nanoporous silica dielectric film for use

in semiconductor device, by coating substrate with composition comprising silicon containing pre-polymer, metal-ion-free catalyst and porogen which does not bond to the pre-polymer.

DERWENT CLASS: A85 E19 G02 L03 U11  
 INVENTOR(S): DENG, E; LEUNG, R Y; LU, V Y; XIE, S  
 PATENT ASSIGNEE(S): (HONE) HONEYWELL INT INC  
 COUNTRY COUNT: 96  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2003088343	A1	20031023	(200382)*	EN	42
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZM ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW					

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2003088343	A1	WO 2002-US15255	20020410

PRIORITY APPLN. INFO: WO 2002-US15255 20020410

AN 2003-903206 [82] WPIDS

AB WO2003088343 A UPAB: 20031223

NOVELTY - A nanoporous silica dielectric film is produced by preparing a composition comprising silicon containing pre-polymer, a metal-ion-free catalyst consisting of onium compounds and nucleophiles, and porogen which does not bond to the silicon containing pre-polymer; coating a substrate with the composition to form a film; crosslinking the composition to produce a gelled film; and heating the gelled film to remove all of the porogen.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:

(a) a nanoporous film produced by the above method; and

(b) a semiconductor device, e.g. integrated circuit, comprising a nanoporous dielectric film.

USE - The invention is used for producing a nanoporous silica dielectric film used in semiconductor device, e.g. integrated circuit (claimed).

ADVANTAGE - By using a double end-capped porogen, chemical attachment of porogen to the silicon-network is prevented. As a result all available silanol groups can be crosslinked to give a rigid network before the removal of the porogen, thus producing a nanoporous film with few silanol groups.

Dwg.0/0

L19 ANSWER 7 OF 67 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN

ACCESSION NUMBER: 2003-568913 [53] WPIDS

DOC. NO. NON-CPI: N2003-452517

DOC. NO. CPI: C2003-153331

TITLE: Manufacture of coated suture for repair of body tissues, by application of coating to surface of the filament of suture by plasma polymerization process of hydrocyclosiloxane monomer.

DERWENT CLASS: A28 A96 D22 P31  
 INVENTOR(S): ROBY, M S  
 PATENT ASSIGNEE(S): (TYCO-N) TYCO HEALTHCARE GROUP LP  
 COUNTRY COUNT: 99  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2003037156	A2	20030508	(200353)*	EN	24
RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SK SL SZ TR TZ UG ZM ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM ZW					

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2003037156	A2	WO 2002-US27621	20020827

PRIORITY APPLN. INFO: US 2001-965872 20010928

AN 2003-568913 [53] WPIDS

AB WO2003037156 A UPAB: 20030820

NOVELTY - A coated suture is manufactured by providing a suture comprising filament(s) having a surface; and applying a coating to the portion of the surface of the filament by a plasma polymerization process of a hydrocyclosiloxane monomer.

DETAILED DESCRIPTION - Manufacture of a coated suture comprises providing a suture comprising filament(s) having a surface; and applying a coating to the portion of the surface of the filament by a plasma polymerization process of a hydrocyclosiloxane monomer of formula (I).

R = aliphatic; and

n = 2-10, preferably 4-6.

An INDEPENDENT CLAIM is included for a suture manufactured by the process.

USE - The process is used for manufacture of coated suture (claimed) used for the repair of body tissues.

ADVANTAGE - The produced suture exhibits a good balance of knot run down and knot security characteristics, superior tissue drag characteristics, and improved fray resistance. It is non-toxic, capable of being readily sterilized and has good tensile strength. The coating improves the mechanical strength of sutures, thus enhancing the sutures' handling characteristics.

Dwg.0/0

L19 ANSWER 8 OF 67 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN

ACCESSION NUMBER: 2003-248102 [24] WPIDS

DOC. NO. NON-CPI: N2003-197135

DOC. NO. CPI: C2003-063962

TITLE: Bioabsorbable compound for compositions used as surgical adhesive or sealant for joining portions of body tissue together, has substituted **polyalkylene oxide** of preset formula.

DERWENT CLASS: A25 A96 D22 G03 P32

INVENTOR(S): ROBY, M S

PATENT ASSIGNEE(S): (ROBY-I) ROBY M S; (TYCO-N) TYCO HEALTHCARE GROUP LP

COUNTRY COUNT: 100  
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2003011173	A2	20030213	(200324)*	EN	39
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZM ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM ZW					
US 2003032734	A1	20030213	(200325)		

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2003011173	A2	WO 2002-US19652	20020619
US 2003032734	A1 Provisional	US 2001-309074P	20010731
		US 2002-176280	20020619

PRIORITY APPLN. INFO: US 2001-309074P 20010731; US 2002-176280  
20020619

AN 2003-248102 [24] WPIDS

AB WO2003011173 A UPAB: 20030410

NOVELTY - A bioabsorbable compound has a substituted **polyalkylene oxide** of preset formula.

DETAILED DESCRIPTION - A bioabsorbable compound has substituted **polyalkylene oxide** of formula (I):

$R'^4-n-C-(R)_n$  (I)

R' groups = each individually chosen from -H and 1-8C alkylene groups;

n = 2-4; and

R groups = each individually chosen from **polyalkylene oxide** groups and **polyalkylene oxide** groups

substituted with at least one isocyanate group having formula (II).

$-(A)_n-NCO$  (II)

A = a bioabsorbable group;

n = 1-20

At least two of the R groups are **polyalkylene oxide** groups substituted with at least one isocyanate group. INDEPENDENT CLAIMS are included for the following:

- (1) One component adhesive comprises the bioabsorbable compound;
- (2) A bioabsorbable composition comprising an amine substituted polyalkylene glycol and a bioabsorbable isocyanate; and
- (3) A method of adhering tissue which involves contacting tissue with the bioabsorbable compound.

USE - For bioabsorbable compositions used as one component adhesive (claimed) such as surgical adhesive or sealant for joining portions of body tissue together or adhering a surgical device such as a surgical mesh, fastener, implant, to soft body tissues or two component adhesive or sealants.

ADVANTAGE - The bioabsorbable compound used as one component adhesive, particularly as biodegradable surgical adhesives with low toxicity. The bioabsorbable isocyanate polymer composition undergoes crosslinking and isocyanate groups are converted to urea or urethane moieties, which promotes adhesion to hard and/or soft tissue. The

isocyanate polymer composition is chemically altered to provide a desired charge on the polymer, and the presence of charge groups on the polymer enhances wound healing in hard or soft tissues. The compositions are blended with other biocompatible, bioabsorbable and non-bioabsorbable materials.

Dwg.0/0

L19 ANSWER 9 OF 67 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN

ACCESSION NUMBER: 2003-765438 [72] WPIDS  
 CROSS REFERENCE: 1992-166856 [20]; 1993-288091 [36]; 1993-303108 [38];  
 1995-178522 [23]; 1995-205596 [27]; 1995-231234 [30];  
 1996-443154 [44]; 1996-496413 [49]; 1996-517886 [51];  
 1997-271255 [24]; 1998-286393 [25]; 1999-008722 [01];  
 1999-044583 [04]; 1999-119885 [10]; 1999-254209 [21];  
 2000-061100 [05]; 2000-375264 [32]; 2000-474846 [41];  
 2001-217689 [22]; 2002-138198 [18]; 2003-102113 [09];  
 2003-742763 [70]; 2004-050458 [05]  
 DOC. NO. NON-CPI: N2003-613081  
 DOC. NO. CPI: C2003-210104  
 TITLE: Crosslinked biocompatible material used in  
 microencapsulation technology, comprises ionically  
 crosslinked component(s) and covalently crosslinked  
 component(s).  
 DERWENT CLASS: A96 B07 D22 P32  
 INVENTOR(S): DESAI, N P; HILL-WEST, J L; HOSSAINY, S F A; HUBBELL, J  
 A; **PATHAK, C P**; SAWHNEY, A S  
 PATENT ASSIGNEE(S): (DESA-I) DESAI N P; (HILL-I) HILL-WEST J L; (HOSS-I)  
 HOSSAINY S F A; (HUBB-I) HUBBELL J A; (PATH-I) PATHAK C  
 P; (SAWH-I) SAWHNEY A S  
 COUNTRY COUNT: 1  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 2003087985	A1	20030508	(200372)*		55

#### APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 2003087985	A1	Cont of	US 1990-598880 19901015
		CIP of	US 1992-843485 19920228
		CIP of	US 1992-870540 19920420
		CIP of	US 1992-958870 19921007
		Cont of	US 1993-22687 19930301
		CIP of	US 1994-336393 19941110
		CIP of	US 1995-379848 19950127
		Cont of	US 1995-510089 19950801
			US 2001-910663 20010719

#### FILING DETAILS:

PATENT NO	KIND	PATENT NO
US 2003087985	A1	Cont of
		CIP of
		CIP of
		CIP of



PRIORITY APPLN. INFO: US 1995-510089 19950801; US 1990-598880  
 19901015; US 1992-843485 19920228; US  
 1992-870540 19920420; US 1992-958870  
 19921007; US 1993-22687 19930301; US  
 1994-336393 19941110; US 1995-379848  
 19950127; US 2001-910663 20010719

AN 2003-765438 [72] WPIDS  
 CR 1992-166856 [20]; 1993-288091 [36]; 1993-303108 [38]; 1995-178522 [23];  
 1995-205596 [27]; 1995-231234 [30]; 1996-443154 [44]; 1996-496413 [49];  
 1996-517886 [51]; 1997-271255 [24]; 1998-286393 [25]; 1999-008722 [01];  
 1999-044583 [04]; 1999-119885 [10]; 1999-254209 [21]; 2000-061100 [05];  
 2000-375264 [32]; 2000-474846 [41]; 2001-217689 [22]; 2002-138198 [18];  
 2003-102113 [09]; 2003-742763 [70]; 2004-050458 [05]

AB US2003087985 A UPAB: 20040120  
 NOVELTY - A crosslinked biocompatible material has ionically crosslinked component(s) and covalently crosslinked component(s). The ionically crosslinked component is from polysaccharide, polyanion, or polycation.  
 DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:  
 (1) a crosslinked biocompatible mixture comprising ionically crosslinkable component(s) and covalently crosslinkable component; and  
 (2) a retrievable implantation material comprising crosslinked biocompatible macrocapsule having ionically crosslinked component(s) and covalently crosslinked component(s) in which the macrocapsule encapsulates a microcapsule(s) of a biologic.  
 USE - The invention is used in microencapsulation technology, or as glue to cause more than one biological substance to adhere together or as carriers for biological species.  
 ADVANTAGE - The invention provides polymeric material that can be polymerized in contact with living cells and tissues and in a very short time period. It is resistant to degradation for a specific time period. The polymeric material is permeable to nutrients and gases yet can protect cells and tissues from in vivo attack by other cells.  
 DESCRIPTION OF DRAWING(S) - The figure schematically shows macromers of the biocompatible material.  
 Dwg.2a/20

L19 ANSWER 10 OF 67 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN  
 ACCESSION NUMBER: 2003-596833 [56] WPIDS  
 CROSS REFERENCE: 2003-606068 [57]  
 DOC. NO. NON-CPI: N2003-475613  
 DOC. NO. CPI: C2003-161652  
 TITLE: Coated stent used for inhibiting restenosis, comprises stent and coating composition comprising 3-hydroxy-3-methylglutaryl coenzyme A reductase inhibitor to inhibit proliferation of smooth muscle cells in body lumen and carrier.  
 DERWENT CLASS: A96 B03 B07 D22 P34  
 INVENTOR(S): AKELLA, R; PATHAK, C; RANIERI, J  
 PATENT ASSIGNEE(S): (AKEL-I) AKELLA R; (PATH-I) PATHAK C; (RANI-I) RANIERI J; (SULZ) SULZER BIOLOGICS INC  
 COUNTRY COUNT: 26  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 2003077310	A1	20030424	(200356)*		17
WO 2003035134	A1	20030501	(200356)	EN	
RW: AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LU MC NL PT SE SK TR					

W: CA JP

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 2003077310	A1	US 2001-991235	20011022
WO 2003035134	A1	WO 2002-US24897	20020806

PRIORITY APPLN. INFO: US 2001-991235 20011022

AN 2003-596833 [56] WPIDS

CR 2003-606068 [57]

AB US2003077310 A UPAB: 20030906

NOVELTY - Coated stent (22) comprises a stent and a coating (24) composition comprising an 3-hydroxy-3-methylglutaryl coenzyme A (HMG-CoA) reductase inhibitor to inhibit proliferation of smooth muscle cells in a body lumen of a patient and a carrier.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:

(1) coating a stent, which involves applying the coating composition to the stent, and

(2) treating restenosis, which involves delivering the coating stent to an occluded body lumen and expanding the stent to provide support to the body lumen.

ACTIVITY - Vasotropic.

MECHANISM OF ACTION - HMG-CoA reductase inhibitor.

USE - Used for inhibiting restenosis.

ADVANTAGE - The polymer layer in the coated stent releases the HMG-CoA reductase in a controlled manner to inhibit or reduce the regrowth of plaque.

DESCRIPTION OF DRAWING(S) - The figure shows a cross-sectional view of an artery containing the coated stent.

Coated stent 22

Coating 24

Dwg.2/8

L19 ANSWER 11 OF 67 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN

ACCESSION NUMBER: 2004-118017 [12] WPIDS

DOC. NO. CPI: C2004-047295

TITLE: Production of acrylate polymer in presence of diluent for medical applications, involves reacting monomers, polymeric graft moiety and graft monomer, adding diluent and curing diluent in mixture.

DERWENT CLASS: A13 A14 A81 G03

INVENTOR(S): ZAJACZKOWSKI, M J

PATENT ASSIGNEE(S): (ADHE-N) ADHESIVES RES INC

COUNTRY COUNT: 1

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 6566466	B1	20030520	(200412)*		7

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 6566466	B1	US 2002-197409	20020718

PRIORITY APPLN. INFO: US 2002-197409 20020718

AN 2004-118017 [12] WPIDS

AB US 6566466 B UPAB: 20040218

NOVELTY - A monomer (A) consisting of monomeric (meth) acrylate acid ester of a non-tertiary alcohol, monomer(s) (B) different from monomer (A), optionally polymeric graft moiety(ies) (C) and optionally graft monomer(s) (D) are reacted under free radical polymerization conditions. A non-reactive diluent is added to the reacted mixture and the diluent in the mixture is then cured to form an acrylate polymer.

DETAILED DESCRIPTION - A monomer (A) consisting of monomeric (meth) acrylate acid ester of a non-tertiary 1-30C alcohol, monomer(s) (B) different from the monomer (A), optionally polymeric graft moiety(ies) (C) having a glass transition temperature (Tg) greater than 20 deg. C and optionally graft monomer(s) (D) containing repeating hydrophilic units are reacted under free radical polymerization conditions. A non-reactive diluent is added to the reacted mixture, the diluent and the mixture are then cured to form an acrylate polymer. The diluent is a ring-opening monomer diluent producing a polymer having a Tg of less than 20 deg. C and/or mixture of the ring-opening monomer diluent and multifunctional liquid polymer having Tg less than 20 deg. C.

USE - For medical applications.

ADVANTAGE - The production method of acrylate polymer avoids use of solvent in the production of polymers and produces residual solvent-free products. The acrylate polymer has pressure sensitive adhesive properties. Dwg.0/0

L19 ANSWER 12 OF 67 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN

ACCESSION NUMBER: 2004-102263 [11] WPIDS

DOC. NO. NON-CPI: N2004-081717

DOC. NO. CPI: C2004-042065

TITLE: Thermoplastic resin composition used as packaging material for electronic parts contains modified **polyalkylene oxide** and thermoplastic resin .

DERWENT CLASS: A25 A85 A92 V04 X25

PATENT ASSIGNEE(S): (JAPC) NIPPON SHOKUBAI CO LTD

COUNTRY COUNT: 1

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
JP 2003055546	A	20030226	(200411)*		12

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 2003055546	A	JP 2001-242931	20010809

PRIORITY APPLN. INFO: JP 2001-242931 20010809

AN 2004-102263 [11] WPIDS

AB JP2003055546 A UPAB: 20040213

NOVELTY - A thermoplastic resin composition contains (A) modified **polyalkylene oxides** (0.01-100 parts by weight) with respect to 1 part by weight of (B) thermoplastic resins.

DETAILED DESCRIPTION - A thermoplastic resin composition contains (A) modified **polyalkylene oxides** (0.01-100 parts by

weight) with respect to 1 part by weight of (B) thermoplastic resins. (A) contains structural units of formula (1) and 1.0-3.0 moles of functional groups of formula (2) with per mole of R in formula (1) and has number average molecular weight of 10000-10,000,000.

R1 = 2-6C divalent organic group;

R = 4-20C tetravalent organic group;

M, M1 and M2 = H, metal atom, -NH4 or organic -NH2; and

n = 5-1000.

USE - The resin composition is used as packaging materials for electronic parts and cabinets of electronic apparatus.

ADVANTAGE - The resin composition has good antistatic properties and surface hydrophilic properties.

Dwg.0/0

L19 ANSWER 13 OF 67 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 1

ACCESSION NUMBER: 2002:276433 HCAPLUS

DOCUMENT NUMBER: 136:299693

TITLE: Novel targeted delivery systems for bioactive agents

INVENTOR(S): Unger, Evan C.; Matsunaga, Terry Onichi; Ramaswami, Varadarajan; Romanowski, Marek J.

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 46 pp., Cont.-in-part of U.S. Ser. No. 703,474.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 7

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002041898	A1	20020411	US 2001-912609	20010725
US 6391687	B1	20020521	US 2000-703474	20001031
US 2004009229	A1	20040115	US 2003-457068	20030605
PRIORITY APPLN. INFO.:			US 2000-478124	A2 20000105
			US 2000-703474	A2 20001031
			US 2000-703484	A2 20001031
			US 2001-912609	A2 20010725
			US 2002-165867	A2 20020606

AB Novel targeted delivery systems for bioactive agents are disclosed. In preferred form, the delivery systems comprise, in combination with an effective amount of a bioactive agent, a targeted matrix comprising a polymer and a targeting ligand. Preferably, the targeting ligand is covalently associated with the polymer and the bioactive agent is associated non-covalently with the polymer. Also in preferred embodiments, the bioactive agent is substantially homogeneously dispersed throughout the matrix. The compns. are particularly suitable as delivery vehicles with bioactive agents that have limited water solubility

L19 ANSWER 14 OF 67 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN

ACCESSION NUMBER: 2002:611898 BIOSIS

DOCUMENT NUMBER: PREV200200611898

TITLE: Treating medical conditions by polymerizing macromers to form polymeric materials.

AUTHOR(S): Hubbell, Jeffrey A. [Inventor, Reprint author];  
**Pathak, Chandrashekhar P.** [Inventor]; Sawhney, Amarpreet [Inventor]; Desai, Neil [Inventor]; Hossainy, Syed [Inventor]; Hill-West, Jennifer L. [Inventor]

CORPORATE SOURCE: Zumikon, Switzerland

ASSIGNEE: Board of Regents, The University of Texas Systems  
 PATENT INFORMATION: US 6465001 October 15, 2002  
 SOURCE: Official Gazette of the United States Patent and Trademark  
 Office Patents, (Oct. 15, 2002) Vol. 1263, No. 3.  
<http://www.uspto.gov/web/menu/patdata.html>. e-file.  
 CODEN: OGUPE7. ISSN: 0098-1133.  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 ENTRY DATE: Entered STN: 27 Nov 2002  
 Last Updated on STN: 27 Nov 2002

AB Water soluble macromers are modified by addition of free radical polymerizable groups, such as those containing a carbon-carbon double or triple bond, which can be polymerized under mild conditions to encapsulate tissues, cells, or biologically active materials. The polymeric materials are particularly useful as tissue adhesives, coatings for tissue lumens including blood vessels, coatings for cells such as islets of Langerhans, and coatings, plugs, supports or substrates for contact with biological materials such as the body, and as drug delivery devices for biologically active molecules. A medical condition at a localized site is treated by applying a polymerization initiator and then applying a substantially water-soluble, degradable macromer of at least 200 mw and having at least two **crosslinkable** substituents, and **polymerizing** the macromer to form a **crosslinked polymeric** material at the site. The **crosslinked polymeric** material may adhere two surfaces together, or be a barrier that provides immunoisolation or prevents adhesion of the site to another surface such as post-surgical adhesion. A biologically active material may be present when the macromer is polymerized to provide for delivery of the biologically active material, or to provide the polymeric material with a desired property such as resistance to bacterial growth or a decrease in inflammatory response.

L19 ANSWER 15 OF 67 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN  
 ACCESSION NUMBER: 2002-404517 [43] WPIDS  
 CROSS REFERENCE: 2002-740926 [80]  
 DOC. NO. NON-CPI: N2002-317534  
 DOC. NO. CPI: C2002-113620  
 TITLE: Biodegradable polymer blend, suitable for formation into sheets and films and used in manufacture of disposable wraps, comprise stiff and soft synthetic biodegradable polymers having preset glass transition temperature.  
 DERWENT CLASS: A23 A92 P73  
 INVENTOR(S): ANDERSEN, P J; HODSON, S K; KHEMANI, K; SCHMIDT, H  
 PATENT ASSIGNEE(S): (KHAS-N) KHASHOGGI IND LLC E; (KHAS-N) KHASHOGGI IND E;  
 (BIOT-N) BIOTEC BIOLOGISCHE NATURVERPACKUNGEN GMB  
 COUNTRY COUNT: 95  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2002016468	A1	20020228	(200243)*	EN	50
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ					
NL OA PT SD SE SL SZ TR TZ UG ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM					
DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC					
LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE					
SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW					
AU 2001049584	A	20020304	(200247)		
BR 2001013483	A	20030415	(200334)		



EP 1311582 A1 20030521 (200334) EN  
 R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT  
 RO SE SI TR  
 US 6573340 B1 20030603 (200339)  
 KR 2003069984 A 20030827 (200406)  
 JP 2004506792 W 20040304 (200417) 75  
 CN 1468273 A 20040114 (200423)

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2002016468	A1	WO 2001-US10052	20010328
AU 2001049584	A	AU 2001-49584	20010328
BR 2001013483	A	BR 2001-13483	20010328
		WO 2001-US10052	20010328
EP 1311582	A1	EP 2001-922824	20010328
		WO 2001-US10052	20010328
US 6573340	B1	US 2000-648471	20000823
KR 2003069984	A	KR 2003-702340	20030218
JP 2004506792	W	WO 2001-US10052	20010328
		JP 2002-521561	20010328
CN 1468273	A	CN 2001-814532	20010328

## FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2001049584	A Based on	WO 2002016468
BR 2001013483	A Based on	WO 2002016468
EP 1311582	A1 Based on	WO 2002016468
JP 2004506792	W Based on	WO 2002016468

PRIORITY APPLN. INFO: US 2000-648471 20000823

AN 2002-404517 [43] WPIDS

CR 2002-740926 [80]

AB WO 200216468 A UPAB: 20040405

NOVELTY - Biodegradable polymer blend comprises: (A) stiff synthetic biodegradable polymer(s) having glass transition temperature (Tg) greater than about 10 deg. C; and (B) soft synthetic biodegradable polymer(s) having Tg less than about 0 deg. C. The polymer blend is suitable for formation into extruded sheets and/or blown films.

USE - For use in manufacture of disposable wraps, bags, packaging material, pouches and coating materials.

ADVANTAGE - The sheet or film has dead-fold properties suitable for use as packaging wrap. The sheet or film is textured to increase its bulk and feel compared to a sheet that is not textured. The biodegradable polymer blend has improved strength, flexibility, elongation and temperature stability properties. The biodegradable polymers can be readily formed into sheet and films that are capable of being folded, sealed or otherwise manipulated in order to reliably enclose and seal a substrate. The sheet and film have sufficient flexibility and undesired self adhesion is minimized. The biopolymers can accept and retain print much more easily than conventional plastics or waxed papers, because they typically include oxygen-containing moieties such as ester or amide groups to which inks can readily adhere. The biodegradable polymer blend has improved water resistance, temperature stability and gas permeability. The extruded sheet and films are readily printable without further processing.

DESCRIPTION OF DRAWING(S) - The figure shows the plot of the prevent

elongation at break versus the applied strain rate for various needs and blended polymer films.

Dwg.1/9

L19 ANSWER 16 OF 67 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN  
 ACCESSION NUMBER: 2003-128022 [12] WPIDS  
 DOC. NO. CPI: C2003-032702  
 TITLE: Cross-linking a tissue for prosthetic use, involves treating the tissue with diunsaturated organic compound.  
 DERWENT CLASS: A96 B04 C06 D16 D22  
 INVENTOR(S): MOORE, M A; PATHAK, C P; PHILLIPS, R E  
 PATENT ASSIGNEE(S): (MOOR-I) MOORE M A; (PATH-I) PATHAK C P; (PHIL-I) PHILLIPS R E; (CARB-N) CARBOMEDICS INC  
 COUNTRY COUNT: 1  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 2002119563	A1	20020829	(200312)*		7
US 6596471	B2	20030722	(200350)		

#### APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 2002119563	A1	US 2000-747023	20001221
US 6596471	B2	US 2000-747023	20001221

PRIORITY APPLN. INFO: US 2000-747023 20001221

AN 2003-128022 [12] WPIDS

AB US2002119563 A UPAB: 20030218

NOVELTY - Cross-linking (M) a tissue, involves treating the tissue under effective cross-linking conditions with a diunsaturated organic compound (I).

DETAILED DESCRIPTION - Cross-linking (M) a tissue involves treating the tissue under effective cross-linking conditions with a diunsaturated organic compound of formula (I).

R, R', R'' = organic moiety having at least 1 carbon atom.

INDEPENDENT CLAIMS are also included for the following:

(1) a cross-linked biological tissue (II) produced by (M), where at least 50 mol% of thiol groups present in the tissue are components of thioether bonds between the tissue and a cross-linking agent; and

(2) a bioprosthesis comprising (II).

USE - (M) is useful for cross-linking a tissue e.g. tendon, ligament, heart valve, duramater, pericardium, skin patch, pericardial patch, aortic patch or tympanic membrane, derived from an animal of species humans, cattle, pigs, horses, sheep, rats, rabbits, ostriches or kangaroos (claimed). The cross-linked tissue is useful for prosthetic use.

ADVANTAGE - The method is simple and cost-effective for cross-linking biological tissues, and provides bioprostheses with more desirable mechanical characteristics, reduced susceptibility to calcification, or enhanced biocompatibility relative to bioprostheses produced from glutaraldehyde cross-linked tissue.

Dwg.0/0

L19 ANSWER 17 OF 67 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN  
 ACCESSION NUMBER: 2003-102113 [09] WPIDS  
 CROSS REFERENCE: 1992-166856 [20]; 1993-288091 [36]; 1993-303108 [38];

1995-178522 [23]; 1995-205596 [27]; 1995-231234 [30];  
 1996-443154 [44]; 1996-496413 [49]; 1996-517886 [51];  
 1997-271255 [24]; 1998-286393 [25]; 1999-008722 [01];  
 1999-044583 [04]; 1999-119885 [10]; 1999-254209 [21];  
 2000-061100 [05]; 2000-375264 [32]; 2000-474846 [41];  
 2001-217689 [22]; 2002-138198 [18]; 2003-742763 [70];  
 2003-765438 [72]; 2004-050458 [05]  
 DOC. NO. CPI: C2003-025585  
 TITLE: Novel biodegradable, polymerizable, and water soluble  
 macromer for forming polymeric, biocompatible material on  
 tissue, comprises water soluble region, degradable  
 region, and two free radical polymerizable regions.  
 DERWENT CLASS: A96 B04 D16 D22 E23  
 INVENTOR(S): DESAI, N P; HILL, J L; HUBBELL, J A; **PATHAK, C P**  
 ; SAWHNEY, A S  
 PATENT ASSIGNEE(S): (TEXA) UNIV TEXAS SYSTEM  
 COUNTRY COUNT: 1  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 2002091229	A1	20020711	(200309)*		23
US 6602975	B2	20030805	(200353)		

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 2002091229	A1	CIP of	US 1992-843485 19920228
		Div ex	US 1993-22687 19930301
		Div ex	US 1995-379848 19950127
		Div ex	US 1995-468364 19950606
		Cont of	US 1996-700237 19960820
		Cont of	US 1998-128917 19980804
		Cont of	US 2000-492011 20000126
			US 2001-21508 20011022
US 6602975	B2	CIP of	US 1992-843485 19920228
		Div ex	US 1993-22687 19930301
		Div ex	US 1995-379848 19950127
		Div ex	US 1995-468364 19950606
		Cont of	US 1996-700237 19960820
		Cont of	US 1998-128917 19980804
		Cont of	US 2000-492011 20000126
			US 2001-21508 20011022

## FILING DETAILS:

PATENT NO	KIND	PATENT NO
US 6602975	B2	Div ex
		Div ex
		Div ex
		Cont of
		Cont of
		Cont of

PRIORITY APPLN. INFO: US 1993-22687 19930301; US 1992-843485  
 19920228; US 1995-379848 19950127; US  
 1995-468364 19950606; US 1996-700237

19960820; US 1998-128917 19980804; US  
2000-492011 20000126; US 2001-21508 20011022

AN 2003-102113 [09] WPIDS  
CR 1992-166856 [20]; 1993-288091 [36]; 1993-303108 [38]; 1995-178522 [23];  
1995-205596 [27]; 1995-231234 [30]; 1996-443154 [44]; 1996-496413 [49];  
1996-517886 [51]; 1997-271255 [24]; 1998-286393 [25]; 1999-008722 [01];  
1999-044583 [04]; 1999-119885 [10]; 1999-254209 [21]; 2000-061100 [05];  
2000-375264 [32]; 2000-474846 [41]; 2001-217689 [22]; 2002-138198 [18];  
2003-742763 [70]; 2003-765438 [72]; 2004-050458 [05]  
AB US2002091229 A UPAB: 20040120  
NOVELTY - A biodegradable, polymerizable, and at least substantially water  
soluble macromer (I) comprising at least one water soluble region, at  
least one degradable region, and at least two free radical polymerizable  
regions, where the polymerizable regions are separated from each other by  
at least one degradable region, is new.  
USE - (I) is useful for forming a polymeric, biocompatible material  
on tissue, by applying (I) to the tissue, in the presence of a free  
radical initiator and polymerizing the macromer. The tissue is coated to  
prevent adhesion of the tissue to other tissue. The tissue is coated and  
adhered to other tissue during polymerization. The method further involves  
providing with the macromer solution biologically active molecules and  
first applying a free radical initiator at the site where the macromer  
solution is to be polymerized. The initiator binds to the tissue, further  
comprises removing unbound initiator prior to application of the macromer  
solution. (I) is also useful for controlled release of biologically active  
molecules, by mixing biologically active molecules with (I), in presence  
of a free radical initiator and polymerizing the macromer to entrap the  
molecules within the resulting polymer, where the polymer forms a shape  
selected from microspheres, sheets, rods, and particles (claimed).  
(I) is useful in forming coatings on the inside of tissue lumens such  
as blood vessels, where there is a concern regarding restenosis, and in  
forming tissue barriers during surgery which prevent adhesions from  
forming. (I) is useful to create tissue supports by forming shaped  
articles within the body to serve a mechanical function.  
ADVANTAGE - (I) is rapidly formed by polymerization in a very short  
time frame and in very thin, or ultrathin layers.  
DESCRIPTION OF DRAWING(S) - The figure shows schematically  
illustrated macromers.  
Dwg.1/4

L19 ANSWER 18 OF 67 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN  
ACCESSION NUMBER: 2003-401072 [38] WPIDS  
DOC. NO. CPI: C2003-106519  
TITLE: Preparation of crystalline, segmented/block  
**glycolide**-based copolymer for forming molded or  
extruded medical device involves one-step heating mixture  
of **glycolide**, amine initiator, catalyst and  
**lactide**-containing comonomer.  
DERWENT CLASS: A23 A25 A96 B07 D22  
INVENTOR(S): SHALABY, S W  
PATENT ASSIGNEE(S): (POLY-N) POLY-MED INC  
COUNTRY COUNT: 1  
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 6498229	B1	20021224	(200338)*		4

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 6498229	B1	US 2001-946430	20010905

PRIORITY APPLN. INFO: US 2001-946430 20010905

AN 2003-401072 [38] WPIDS

AB US 6498229 B UPAB: 20030616

NOVELTY - A crystalline, segmented/block **glycolide**-based copolymer is prepared by one-step heating a mixture of **glycolide**, hydroxylic or amine initiator, organo-metallic catalyst, and comonomer, to 110-180 deg. C. The comonomer consists of **lactide**, **trimethylene carbonate**, and/or **caprolactone**.

USE - For preparing crystalline, segmented/block **glycolide**-based copolymer for forming molded or extruded medical devices useful in ophthalmology, orthopedic, cardiovascular and dialysis area.

ADVANTAGE - The inventive method provides a direct, one-step copolymerization of **glycolide** with one or more cyclic monomers. It is simple and reliable in preparing crystalline **glycolide** copolymer with broad range of physicochemical properties and unique functional performance.

Dwg.0/0

L19 ANSWER 19 OF 67 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN  
 ACCESSION NUMBER: 2002-616495 [66] WPIDS  
 CROSS REFERENCE: 1999-094997 [08]; 2000-115409 [10]; 2000-236814 [20];  
 2002-187307 [24]; 2002-462575 [49]; 2004-041095 [04]  
 DOC. NO. NON-CPI: N2002-487762  
 DOC. NO. CPI: C2002-174267  
 TITLE: Covalently **crosslinkable** composition used for forming hydrogels comprises aqueous emulsion comprising water-insoluble copolymer containing **bioresorbable** region, hydrophilic region and **crosslinkable** functional groups.  
 DERWENT CLASS: A96 B05 B07 D22 P32 P34  
 INVENTOR(S): LOOMIS, G L  
 PATENT ASSIGNEE(S): (SCIM-N) SCIMED LIFE SYSTEMS INC  
 COUNTRY COUNT: 1  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 6403758	B1	20020611	(200266)*		8

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 6403758	B1 Div ex	US 1997-914130	19970818
	Cont of	US 1998-145588	19980902
	Cont of	US 1999-243379	19990201
		US 1999-436774	19991108

## FILING DETAILS:

PATENT NO	KIND	PATENT NO
US 6403758	B1 Div ex	US 5854382



Cont of US 6005020  
Cont of US 6028164

PRIORITY APPLN. INFO: US 1997-914130 19970818; US 1998-145588  
19980902; US 1999-243379 19990201; US  
1999-436774 19991108

AN 2002-616495 [66] WPIDS  
CR 1999-094997 [08]; 2000-115409 [10]; 2000-236814 [20]; 2002-187307 [24];  
2002-462575 [49]; 2004-041095 [04]  
AB US 6403758 B UPAB: 20040115

NOVELTY - Covalently **crosslinkable** composition (A) comprises an aqueous emulsion comprising 20 weight% water-insoluble copolymer (I) containing a **bioresorbable** region, a hydrophilic region and **crosslinkable** functional groups.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

- (1) forming a hydrogel which comprises **crosslinking** the functional groups of (I), and
- (2) a medical device in which at least one surface is coated with (A).

USE - The hydrogel is useful for delivery of drugs and **bioactive** agents such as thromboresistant agents (preferably heparin, heparin sulfate, hirudin, hyaluronic acid, chondroitin sulfate, dermatan sulfate, keratan sulfate, lytic agents, urokinase or streptokinase), antibiotics (preferably penicillins, cephalosporins, vancomycins, aminoglycosides, quinolones, polymyxins, erythromycins, tetracyclines, chloramphenicols, clindamycins, lincomycins or sulfonamides), antitumor agents (preferably paclitaxel, mechlorethamine, chlormabucil, cyclophosphamide, melphalan, ifosfamide, methotrexate, 6-mercaptopurine, 5-fluorouracil, cytarabine, vinblastine, vincristine, etoposide, doxorubicin, daunomycin, bleomycin, mitomycin, carmustine, lomustine, cisplatin, interferon, asparaginase, tamoxifen and/or flutamide), antiviral agents (preferably amantadines, rimantadines, ribavirins, idoxuridines, vidarabines, trifluridines, acyclovirs, gancyclovirs, zidovudines, foscarnets and/or interferons), antiangiogenic agents, angiogenic agents, anti-inflammatory agents and/or cell cycle regulating agents or their chemically modified equivalents. The hydrogels are also good sealants for implantable prostheses when in contact with an aqueous environment.

Dwg.0/0

L19 ANSWER 20 OF 67 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN  
ACCESSION NUMBER: 2002-442207 [47] WPIDS  
DOC. NO. NON-CPI: N2002-348209  
DOC. NO. CPI: C2002-125961  
TITLE: Polymeric carrier for delivering bioactive or bioreactive molecules to patient comprises stereocomplex of biocompatible polymer and bioactive or bioreactive molecule.  
DERWENT CLASS: A96 B04 B07 D16 D22 P32  
INVENTOR(S): DOMB, A J; ZEHA VI, Z  
PATENT ASSIGNEE(S): (EFRA-N) EFRAT BIOPOLYMERS LTD  
COUNTRY COUNT: 1  
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 6365173	B1	20020402	(200247)*		10

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 6365173	B1	US 1999-231552	19990114

PRIORITY APPLN. INFO: US 1999-231552 19990114

AN 2002-442207 [47] WPIDS

AB US 6365173 B UPAB: 20020725

NOVELTY - A polymeric carrier consists of a stereocomplex of biocompatible stereoselective polymer(s) and bioactive or bioreactive molecules. The polymeric carrier is obtained by forming stereocomplex from polymers and incorporating bioactive or bioreactive molecules.

USE - The polymeric carrier is used to deliver bioactive or bioreactive molecules to a patient. It is used to prepare pharmaceutical formulation in the form of particles, tablets, pellets, rods, beads, prosthetic implants, ointments, pastes, creams and gels.

ADVANTAGE - The inventive polymeric carrier safely and effectively delivers bioactive and bioreactive molecules.

Dwg.0/0

L19 ANSWER 21 OF 67 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 2

ACCESSION NUMBER: 2001:63806 HCAPLUS

DOCUMENT NUMBER: 134:136684

TITLE: Biodegradable poly(alkylene oxide)-poly(p-dioxanone) block copolymer soluble in organic solvents, and drug delivery composition comprising same

INVENTOR(S): Seo, Min-Hyo; Choi, In-Ja

PATENT ASSIGNEE(S): Samyang Corporation, S. Korea

SOURCE: PCT Int. Appl., 35 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001005379	A1	20010125	WO 2000-KR779	20000718
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
KR 2001010393	A	20010205	KR 1999-29269	19990720
BR 2000012588	A	20020409	BR 2000-12588	20000718
EP 1196149	A1	20020417	EP 2000-946497	20000718
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO			
JP 2003504393	T2	20030204	JP 2001-510436	20000718
AU 758838	B2	20030403	AU 2000-60247	20000718
NZ 517035	A	20030725	NZ 2000-517035	20000718
US 6599519	B1	20030729	US 2001-763921	20010628

ZA 2002000462 A 20030120 ZA 2002-462 20020118  
 PRIORITY APPLN. INFO.: KR 1999-29269 A 19990720  
 WO 2000-KR779 W 20000718

AB The present invention relates to a biocompatible and biodegradable block copolymer of poly(alkylene oxide) and poly(p-**dioxanone**) (PDO), which is soluble in organic solvents, for delivery of peptides, proteins, antitumor agents, antiphlogistic anodyne agents, antibiotics, antibacterials, hormones, genes, and vaccines. Drug delivery compns. comprise microspheres, microcapsules, films, strips, fibers, gels, sols, nanospheres, nanocapsules, and micelles. For example, 5 g of poly(ethylene glycol) monomethyl ether and 10 g of 1,4-dioxane-2-one reacted in presence of 4.06 mg of stannous octoate to obtain a mPEG-PDO diblock copolymer with the mPEG content of 46.3 weight%. The mPEG-PDO diblock copolymer (0.85 g) was dissolved in 2 mL of dichloromethane and 0.15 g of ofloxacin was suspended therein. The suspension was added to a 1 weight% polyvinyl alc. aqueous solution and stirred at 1200 rpm to obtain a microsphere solution. The solution was freeze-dried to give microspheres having an average particle size of 10  $\mu$  and containing 14.6% ofloxacin.

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 22 OF 67 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN  
 ACCESSION NUMBER: 2002:225460 BIOSIS  
 DOCUMENT NUMBER: PREV200200225460  
 TITLE: Composite materials and surgical articles made therefrom.  
 AUTHOR(S): Roby, Mark S. [Inventor]  
 CORPORATE SOURCE: ASSIGNEE: United States Surgical Corporation, Nlorkwalk, CT, USA  
 PATENT INFORMATION: US 6315788 November 13, 2001  
 SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (Nov. 13, 2001) Vol. 1252, No. 2.  
<http://www.uspto.gov/web/menu/patdata.html>. e-file.  
 CODEN: OGUPE7. ISSN: 0098-1133.  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 ENTRY DATE: Entered STN: 3 Apr 2002  
 Last Updated on STN: 3 Apr 2002

AB Composite materials have a core portion formed from a **polyalkylene oxide** initiated block copolymer having one of the blocks made from hard phase forming monomers and another of the blocks made from random copolymers of soft phase forming monomers and at least one shell portion formed from a block copolymer having one of the blocks made from hard phase forming monomers and another of the blocks made from random copolymers of soft phase forming monomers joined to the core portion. Hard phase forming monomers include **glycolide** and **lactide** while soft phase forming monomers include 1,4 dioxane-2-one, 1,3 dioxane-2-one and **caprolactone**. In a preferred embodiment, the core portion is coextruded with the shell portion to form a composite filament or sheet. The composite materials may be used as sutures or formed into medical devices or surgical articles for implantation within a living organism.

L19 ANSWER 23 OF 67 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN  
 ACCESSION NUMBER: 2002:23608 BIOSIS  
 DOCUMENT NUMBER: .PREV200200023608  
 TITLE: Photopolymerizable biodegradable hydrogels as tissue contacting materials and controlled-release carriers.  
 AUTHOR(S): Hubbell, Jeffrey A. [Inventor]; **Pathak, Chandrashekhar P.** [Inventor]; Sawhney, Amarpreet S. [Inventor];

Desai, Neil P. [Inventor]; Hill, Jennifer L. [Inventor,  
Reprint author]  
CORPORATE SOURCE: Austin, TX, USA  
ASSIGNEE: Boards of Regents, The University of Texas  
System, Austin, TX, USA  
PATENT INFORMATION: US 6306922 October 23, 2001  
SOURCE: Official Gazette of the United States Patent and Trademark  
Office Patents, (Oct. 23, 2001) Vol. 1251, No. 4. e-file.  
CODEN: OGUPE7. ISSN: 0098-1133.  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
ENTRY DATE: Entered STN: 26 Dec 2001  
Last Updated on STN: 25 Feb 2002

AB Hydrogels of **polymerized** and **crosslinked** macromers  
comprising hydrophilic oligomers having biodegradable monomeric or  
oligomeric extensions, which biodegradable extensions are terminated on  
free ends with end cap monomers or oligomers capable of polymerization and  
cross linking are described. The hydrophilic core itself may be  
degradable, thus combining the core and extension functions. Macromers  
are polymerized using free radical initiators under the influence of long  
wavelength ultraviolet light, visible light excitation or thermal energy.  
Biodegradation occurs at the linkages within the extension oligomers and  
results in fragments which are non-toxic and easily removed from the body.  
Preferred applications for the hydrogels include prevention of adhesion  
formation after surgical procedures, controlled release of drugs and other  
bioactive species, temporary protection or separation of tissue surfaces,  
adhering of sealing tissues together, and preventing the attachment of  
cells to tissue surfaces.

L19 ANSWER 24 OF 67 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN  
ACCESSION NUMBER: 2002-268631 [31] WPIDS  
DOC. NO. CPI: C2002-079620  
TITLE: Pharmaceutical composition useful as controlled release  
delivery system for e.g. proteins comprises matrix  
containing aqueous phase, at least one other phase and at  
least one **crosslinked** polymer.  
DERWENT CLASS: A96 B07  
INVENTOR(S): QIU, B; STEIN, S  
PATENT ASSIGNEE(S): (UYNE-N) UNIV NEW JERSEY MEDICINE & DENTISTRY; (QIUB-I)  
QIU B; (STEI-I) STEIN S  
COUNTRY COUNT: 94  
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001097865	A2	20011227	(200231)*	EN	51
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW					
AU 2001068526	A	20020102	(200233)		
US 2002076443	A1	20020620	(200244)		

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
-----			

WO 2001097865 A2	WO 2001-US19451	20010619
AU 2001068526 A	AU 2001-68526	20010619
US 2002076443 A1 Provisional	US 2000-212511P	20000619
	US 2001-883842	20010618

FILING DETAILS:

PATENT NO	KIND	PATENT NO
-----		
AU 2001068526 A	Based on	WO 2001097865

PRIORITY APPLN. INFO: US 2001-883842 20010618; US 2000-212511P  
20000619

AN 2002-268631 [31] WPIDS

AB WO 200197865 A UPAB: 20020516

NOVELTY - Pharmaceutical composition comprises a matrix delivering at least one therapeutic agent (A1) to a bodily compartment under controlled release conditions. The matrix comprises a homogenous mixture of aqueous phase, at least one other phase (b) and at least one **crosslinked** polymer (a) physically entrapping the therapeutic agent. The agent is present in at least one of the phases.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

- (1) preparing the composition which comprises:
  - (i) preparing a mixture comprising (A1) and at least two phases in which one phase is the aqueous phase comprising a polymer (a1) having at least two functional groups, and
  - (ii) **crosslinking** (a1) under conditions to form a **crosslinked** matrix entrapping (A1);
- (2) delivering (A1) to the bodily compartment to an animal under controlled release conditions involving providing the composition in the compartment, and
- (3) administering a controlled release therapeutic agent (A2) which comprises preparing a solution comprising a hydrogel forming polymer having at least two thiol groups and several phases, one of which is the aqueous phase, a **crosslinking** agent (d1) comprising at least two thiol-reactive groups, and a drug, and injecting the solution so that a hydrogel drug depot is formed at the site of injection having the drug temporarily entrapped in it.

ACTIVITY - None given.

MECHANISM OF ACTION - None given.

USE - Used as a controlled release delivery system for therapeutic agents e.g. small-molecule drug (preferably anticancer drug, cardiovascular drug, antibiotic, antifungal, antiviral drug, AIDS drug, HIV-1 protease inhibitor, reverse transcriptase inhibitor, antinociceptive drug, hormone, vitamin, antiinflammatory drug, angiogenesis drug or antiangiogenesis drug, protein, nucleic acid or a polysaccharide).

ADVANTAGE - The matrix maintains the stability of a therapeutic agent against denaturation or other metabolic conversion by protection within the matrix until release, which is important for very long sustained release. The entrapped (A1) is released from the depot at an uniform rate, following a kinetic profile. The desired release profile can be selected by varying the components and the process by which the matrix is prepared. The matrix is nontoxic and degradable. The process used to prepare the matrix does not chemically or physically damage the therapeutic agent (particularly proteins), avoiding protein inactivation or rendering the protein immunogenic. The composition exhibits new and useful physical properties including stability of oil-water emulsions and controlled release kinetic profiles of active ingredients.



Dwg.0/5

L19 ANSWER 25 OF 67 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN  
 ACCESSION NUMBER: 2001-449995 [48] WPIDS  
 CROSS REFERENCE: 1993-368383 [46]; 2001-450079 [36]; 2001-647840 [55]  
 DOC. NO. CPI: C2001-135810  
 TITLE: Bioadhesive polymeric microspheres for therapeutic or  
 diagnostic purposes in gastrointestinal tract diseases,  
 comprise microparticle having polymeric surface with  
 specified adhesive force.  
 DERWENT CLASS: A11 A96 B07  
 INVENTOR(S): CHICKERING, D; JACOB, J S; MATHIOWITZ, E  
 PATENT ASSIGNEE(S): (UYBR-N) UNIV BROWN RES FOUND  
 COUNTRY COUNT: 1  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 6217908	B1	20010417	(200148)*		23

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 6217908	B1 CIP of	US 1992-873480	19920424
		US 1993-52473	19930423

PRIORITY APPLN. INFO: US 1993-52473 19930423; US 1992-873480  
 19920424

AN 2001-449995 [48] WPIDS

CR 1993-368383 [46]; 2001-450079 [36]; 2001-647840 [55]

AB US 6217908 B UPAB: 20011220

NOVELTY - A bioadhesive polymeric microspheres comprise a microparticle having a polymeric surface with an adhesive force of 110-1 multiply 105 N/m2 measured on rat intestine. The polymer can be synthetic polymers, proteins, or polysaccharides and is modified to increase the number of available charged groups.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:

(A) a method for delivering a compound to a patient comprising administering to a mucosal membrane of a patient a drug within a microparticle of the above invention; and

(B) polymeric microparticle comprising polymeric surface mucin binding compounds. The binding compounds can be sialic acid, neuraminic acid, n-acetyl-neuraminic acid, n-glycolylneuraminic acid, 4-acetyl-n-acetylneuraminic acid, glucuronic acid, iduronic acid, galactose, glucose, mannose, fucose, mucoproteins, mucopolysaccharides, mucopolysaccharide-protein complexes, lectins, or antibodies immunoreactive against proteins or sugar on the mucosal surface.

USE - For therapeutic or diagnostic purposes in gastrointestinal tract diseases.

ADVANTAGE - The invented composition produces uniform coverage as well as better adhesion of barium to mucosa in the stomach and intestine. It also eliminates the problem of barium sulfate precipitation by protecting it from local pH.

Dwg.0/8

L19 ANSWER 26 OF 67 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN  
 ACCESSION NUMBER: 2002-018588 [03] WPIDS

DOC. NO. CPI: C2002-005508  
 TITLE: Soft plasticizer-free capsules for use in pharmaceuticals, cosmetics, detergents or plant protectants are made from a polymers obtained by polymerizing a vinyl ester in presence of a polyether substrate.  
 DERWENT CLASS: A18 A25 A96 A97 B07 C07 D13 D21 D25  
 INVENTOR(S): ANGEL, M; GOTSCHKE, M; KOLTER, K; SANNER, A  
 PATENT ASSIGNEE(S): (BADI) BASF AG; (ANGE-I) ANGEL M; (GOTS-I) GOTSCHKE M; (KOLT-I) KOLTER K; (SANN-I) SANNER A  
 COUNTRY COUNT: 32  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
DE 10012063	A1	20010920	(200203)*		19
BR 2001002338	A	20011016	(200203)		
CA 2340546	A1	20010914	(200203)	EN	
EP 1136070	A1	20010926	(200203)	GE	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR					
JP 2001329029	A	20011127	(200210)		66
KR 2001092341	A	20011024	(200222)		
CN 1326732	A	20011219	(200226)		
US 2002119169	A1	20020829	(200259)		

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
DE 10012063	A1	DE 2000-10012063	20000314
BR 2001002338	A	BR 2001-2338	20010314
CA 2340546	A1	CA 2001-2340546	20010313
EP 1136070	A1	EP 2001-106041	20010312
JP 2001329029	A	JP 2001-72868	20010314
KR 2001092341	A	KR 2001-13238	20010314
CN 1326732	A	CN 2001-121435	20010314
US 2002119169	A1	US 2001-805239	20010314

PRIORITY APPLN. INFO: DE 2000-10012063 20000314

AN 2002-018588 [03] WPIDS

AB DE 10012063 A UPAB: 20020114

NOVELTY - Soft capsules comprise (a) polymers obtained from vinyl esters in presence of polyethers and optionally also (b) structure-improving agents and (c) conventional additives.

USE - For pharmaceuticals, cosmetics, plant protectants, detergents or food supplements (claimed).

ADVANTAGE - The capsules are superior to those based on gelatin or prior-art substitutes and can be processed without use of a plasticizer.  
 Dwg.0/0

L19 ANSWER 27 OF 67 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 3

ACCESSION NUMBER: 2000:401600 HCAPLUS

DOCUMENT NUMBER: 133:48935

TITLE: Biocompatible **crosslinked polymers**  
 capable of reacting and **crosslinking** in situ

INVENTOR(S): **Pathak, Chandrashekhar P.**; Sawhney,  
 Amarpreet S.; Edelman, Peter G.

PATENT ASSIGNEE(S): USA  
 SOURCE: PCT Int. Appl., 79 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 4  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000033764	A1	20000615	WO 1999-US28718	19991203
W: AU, CA, JP				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 1137373	A1	20011004	EP 1999-968867	19991203
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2002531217	T2	20020924	JP 2000-586259	19991203
PRIORITY APPLN. INFO.: US 1998-110849P P 19981204				
WO 1999-US28718 W 19991203				

AB Biocompatible **crosslinked polymers**, and methods for their preparation and use, are disclosed in which the biocompatible **crosslinked polymers** are formed from water soluble precursors having electrophilic and nucleophilic groups capable of reacting and crosslinking in situ. Methods for making the resulting biocompatible **crosslinked polymers** biodegradable or not are provided, as are methods for controlling the rate of degradation. The crosslinking reactions may be carried out in situ on organs or tissues or outside the body. Applications for such biocompatible **crosslinked polymers** and their precursors include controlled delivery of drugs, prevention of post-operative adhesions, coating of medical devices such as vascular grafts, wound dressings and surgical sealants. Gels comprising 20% carboxymethyl hydroxybutyrate-hydroxysuccinimide end-capped 4 arm PEG (preparation given) were formulated. The efficacy of the gels in prevention of adhesion in rat cecum model was shown.

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 28 OF 67 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 4  
 ACCESSION NUMBER: 2000:513366 HCAPLUS  
 DOCUMENT NUMBER: 133:105518  
 TITLE: Phosphonylated polymeric derivatives for dental products and flame retardants  
 INVENTOR(S): Shalaby, Shalaby W.  
 PATENT ASSIGNEE(S): Poly-Med Inc., USA  
 SOURCE: Eur. Pat. Appl., 10 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1022315	A1	20000726	EP 1999-250437	19991216
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
US 6395259	B1	20020528	US 1999-464870	19991216
JP 2000212218	A2	20000802	JP 2000-8749	20000118

US 2002187113 A1 20021212 US 2002-153008 20020522  
US 6551580 B2 20030422

PRIORITY APPLN. INFO.:

US 1999-116408P P 19990119  
US 1999-464870 A3 19991216

AB The phosphonylated polymer having P content  $\geq 0.1\%$  comprises a polymer selected from an acrylic polymer, a **polyalkylene oxide**, a polyamide or a polyester, and a phosphorous-containing functional group, wherein the phosphorous atom of each functional group is covalently bonded to a carbon atom of the polymer. The the phosphonylated polymers are useful for dental products such as varnish or sealer, and flame retardant for polyesters and polyurethanes. Thus, 20 g poly(Me methacrylate) was reacted with 20 mL phosphorus trichloride with oxygen flow to give polymer having P content 1.45%.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 29 OF 67 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN  
DUPLICATE 5

ACCESSION NUMBER: 2000:521759 BIOSIS

DOCUMENT NUMBER: PREV200000521759

TITLE: Photopolymerizable biodegradable hydrogels as tissue contacting materials and controlled-release carriers.

AUTHOR(S): Hubbell, Jeffrey A. [Inventor, Reprint author];  
**Pathak, Chandrashekhar P.** [Inventor]; Sawhney, Amarpreet S. [Inventor]; Desai, Neil P. [Inventor]; Hill-West, Jennifer L. [Inventor]

CORPORATE SOURCE: Austin, TX, USA  
ASSIGNEE: The Board of Regents, The University of Texas System, Austin, TX, USA

PATENT INFORMATION: US 6060582 May 09, 2000

SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (May 9, 2000) Vol. 1234, No. 2. e-file.  
CODEN: OGUPE7. ISSN: 0098-1133.

DOCUMENT TYPE: Patent

LANGUAGE: English

ENTRY DATE: Entered STN: 29 Nov 2000

Last Updated on STN: 11 Jan 2002

AB Hydrogels of **polymerized** and **crosslinked** macromers comprising hydrophilic oligomers having biodegradable monomeric or oligomeric extensions, which biodegradable extensions are terminated on free ends with end cap monomers or oligomers capable of polymerization and cross linking are described. The hydrophilic core itself may be degradable, thus combining the core and extension functions. Macromers are polymerized using free radical initiators under the influence of long wavelength ultraviolet light, visible light excitation or thermal energy. Biodegradation occurs at the linkages within the extension oligomers and results in fragments which are non-toxic and easily removed from the body. Preferred applications for the hydrogels include prevention of adhesion formation after surgical procedures, controlled release of drugs and other bioactive species, temporary protection or separation of tissue surfaces, adhering of sealing tissues together, and preventing the attachment of cells to tissue surfaces.

L19 ANSWER 30 OF 67 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN

ACCESSION NUMBER: 2001-182471 [18] WPIDS

DOC. NO. CPI: C2001-054326

TITLE: Preparation of thioether cross-linked hydrogel drug depots, useful for in-vivo controlled release of active agents, using polymers having thiol groups and

vinylsulfone groups.  
 DERWENT CLASS: A11 A14 A28 A96 B04 B07 D16  
 INVENTOR(S): QIU, B; STEIN, S; ZHANG, G  
 PATENT ASSIGNEE(S): (UYNE-N) UNIV NEW JERSEY MEDICINE & DENTISTRY  
 COUNTRY COUNT: 94  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2000078285	A1	20001228	(200118)*	EN	66
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW					
AU 2000057501	A	20010109	(200122)		
EP 1194119	A1	20020410	(200232)	EN	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI					

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2000078285	A1	WO 2000-US16881	20000619
AU 2000057501	A	AU 2000-57501	20000619
EP 1194119	A1	EP 2000-942957	20000619
		WO 2000-US16881	20000619

## FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2000057501	A Based on	WO 2000078285
EP 1194119	A1 Based on	WO 2000078285

PRIORITY APPLN. INFO: US 1999-335813 19990618; US 1999-139956P  
 19990618

AN 2001-182471 [18] WPIDS

AB WO 200078285 A UPAB: 20011129

NOVELTY - Preparing a thioether cross-linked hydrogel (TCLH) drug depot comprises:

(1) preparing a solution of therapeutic agent and a polymer system comprising a first polymer having thiol groups and a second polymer having two or more vinylsulfone groups; and

(2) forming thioether linkages between the thiol and vinylsulfone groups to form a TCLH matrix with the therapeutic agent entrapped in it.

DETAILED DESCRIPTION - Preparing a thioether cross-linked hydrogel (TCLH) drug depot comprises:

(1) preparing a solution of therapeutic agent and a polymer system comprising a first polymer (P1) having thiol groups and a second polymer (P2) having two or more vinylsulfone groups; and

(2) forming thioether linkages between the thiol and vinylsulfone groups to form a TCLH matrix with the therapeutic agent entrapped in it.

INDEPENDENT CLAIMS are also included for the following:

(a) a method of administering a therapeutic agent to a mammal comprising:

(i) preparing a solution comprising a hydrogel forming polymer, a



**crosslinker** and the drug; and

(ii) injecting the solution to form a hydrogel depot containing the entrapped drug at the site of the injection, the polymer has two or more thiol groups and the cross-linker has two or more vinylsulfone groups or the polymer has two or more vinylsulfone groups and the cross-linker has two or more thiol groups;

(b) a hydrogel drug depot comprising a therapeutic agent entrapped within a polymer comprising a TCLH matrix;

(c) a kit for forming a hydrogel drug depot comprising:

(i) a therapeutic or diagnostic agent; and

(ii) (P1) and (P2) capable of covalently bonding to one another under physiological conditions to form TCLH matrix and entrapping the agent in it;

(d) a method of preparing a matrix physically entrapping at least one therapeutic agent comprising:

(i) preparing a solution of therapeutic agent and at least one P1;

and

(ii) incubating the solution under conditions that cause

**crosslinking** of the thiol groups to form a cross-linked matrix;

(e) a pharmaceutical composition consisting of a matrix comprising a therapeutic agent exhibiting at least one first controlled in-vivo kinetic profile, the matrix comprising at least one cross-linked polymer on which at least two thiol groups are present and which entraps the agent; and

(f) a method of controlled release comprising administering:

(i) a therapeutic agent in a matrix prepared as in (d); or

(ii) a mixture of at least two different matrices as in (d) having different controlled release in vivo kinetic profiles.

USE - As a hydrogel depot preparation for in-vivo controlled release of active agent (preferably over 3 or more days, especially over 20 or more days) in a zero order, pseudo zero order or first order release profile.

Dwg.0/2

L19 ANSWER 31 OF 67 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN  
 ACCESSION NUMBER: 2001-146768 [15] WPIDS  
 DOC. NO. NON-CPI: N2001-107466  
 DOC. NO. CPI: C2001-043348  
 TITLE: **Biomaterials** modified with non-proteinaceous catalysts for dismutation of superoxide, useful e.g. for implants or cardiac lead wires.  
 DERWENT CLASS: A96 B02 D22 P34  
 INVENTOR(S): BRETHAUR, K; FORSTER, D; HENKE, S; JOARDAR, S; ORNBERG, R; RILEY, D; THURMOND, B; UDIPI, K  
 PATENT ASSIGNEE(S): (MONS) MONSANTO CO  
 COUNTRY COUNT: 93  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2000072893	A2	20001207	(200115)*	EN	243
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW					
AU 2000050484	A	20001218	(200118)		
EP 1185312	A2	20020313	(200225)	EN	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT					

RO SE SI  
JP 2003500174 W 20030107 (200314) 224

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2000072893	A2	WO 2000-US14847	20000526
AU 2000050484	A	AU 2000-50484	20000526
EP 1185312	A2	EP 2000-932810	20000526
		WO 2000-US14847	20000526
JP 2003500174	W	JP 2000-620999	20000526
		WO 2000-US14847	20000526

## FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2000050484	A Based on	WO 2000072893
EP 1185312	A2 Based on	WO 2000072893
JP 2003500174	W Based on	WO 2000072893

PRIORITY APPLN. INFO: US 1999-136298P 19990527

AN 2001-146768 [15] WPIDS

AB WO 200072893 A UPAB: 20010317

NOVELTY - A **biomaterial** modified with at least one non-proteinaceous catalyst for the dismutation of superoxide or a precursor ligand of a non-proteinaceous catalyst for the dismutation of superoxide is new.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for a process for producing a **biomaterial** modified by surface covalent conjugation with at least one non-proteinaceous catalyst for the dismutation of superoxide or at least one precursor ligand of a non-proteinaceous catalyst for the dismutation of superoxide comprising:

(a) providing at least one reactive functional group on a surface of the **biomaterial** to be modified;

(b) providing at least one complementary reactive functional group on the non-proteinaceous catalyst for the dismutation of superoxide or on the precursor ligand; and

(c) conjugating the non-proteinaceous catalyst for the dismutation of superoxide or the precursor ligand with the surface of the **biomaterial** through at least one covalent bond.

USE - The **biomaterials** show greatly improved durability and decreased inflammatory response when interacting with **biological** systems. The **biomaterials** are ideal for use in devices for implantation (e.g. stents, vascular graft fabrics, sutures, nerve growth channels or cardiac lead wires) or the handling of bodily fluids (e.g. hemodialysis machines).

ADVANTAGE - Since the non-proteinaceous catalysts for the dismutation of superoxide are not consumed during the dismutation reaction, they may retain their activity indefinitely. Articles such as lead wires coated with the **biocompatible** material are believed to be more durable in the body and thus prevent the device failure which is often seen with conventional polyurethane coated wires.

Dwg.0/16

L19 ANSWER 32 OF 67 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN  
ACCESSION NUMBER: 2001-031589 [04] WPIDS  
DOC. NO. NON-CPI: N2001-024768

DOC. NO. CPI: C2001-009531  
 TITLE: Production of low dielectric nanoporous film on a substrate used for producing integrated circuits uses silicon-based starting materials and thermally degradable polymers soluble in the starting materials.  
 DERWENT CLASS: A14 A28 A85 G02 L03 U11  
 INVENTOR(S): CASE, S; LEUNG, R Y  
 PATENT ASSIGNEE(S): (ALLC) ALLIED-SIGNAL INC  
 COUNTRY COUNT: 84  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2000061834	A1	20001019	(200104)*	EN	42
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW					
W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH GM HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZW					
AU 2000044624	A	20001114	(200108)		
US 6204202	B1	20010320	(200118)		
EP 1169491	A1	20020109	(200205)	EN	
R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE					
US 6413882	B1	20020702	(200248)		
KR 2002008391	A	20020130	(200253)		
CN 1355858	A	20020626	(200263)		
JP 2003529202	W	20030930	(200365)		48

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2000061834	A1	WO 2000-US10214	20000414
AU 2000044624	A	AU 2000-44624	20000414
US 6204202	B1	US 1999-291510	19990414
EP 1169491	A1	EP 2000-926025	20000414
		WO 2000-US10214	20000414
US 6413882	B1	US 1999-291511	19990414
KR 2002008391	A	KR 2001-713179	20011015
CN 1355858	A	CN 2000-808918	20000414
JP 2003529202	W	JP 2000-612742	20000414
		WO 2000-US10214	20000414

## FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2000044624	A Based on	WO 2000061834
EP 1169491	A1 Based on	WO 2000061834
JP 2003529202	W Based on	WO 2000061834

PRIORITY APPLN. INFO: US 1999-291511 19990414; US 1999-291510 19990414

AN 2001-031589 [04] WPIDS

AB WO 200061834 A UPAB: 20010118

NOVELTY - A low dielectric nanoporous film is produced by coating to a substrate a spin-on-glass (SOG) material produced from a mixture of SOG material(s) with a thermally degradable polymer in a solvent, and heating.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for an integrated circuit (IC) comprising at least one low dielectric nanoporous film.

USE - The low dielectric nanoporous film is used in producing integrated circuits (ICs).

ADVANTAGE - The invention provides films with improved mechanical strength to withstand further processing in IC preparations, and a low and stable dielectric constant. The stable dielectric constant is achieved without further surface modification to make the film hydrophobic.

Dwg.0/0

L19 ANSWER 33 OF 67 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN  
 ACCESSION NUMBER: 2001-023081 [03] WPIDS  
 CROSS REFERENCE: 1997-200939 [18]; 1997-470498 [43]; 1999-094805 [08]  
 DOC. NO. NON-CPI: N2001-017947  
 DOC. NO. CPI: C2001-006874  
 TITLE: Enhancing echogenicity of porous microparticles formed of air and synthetic biocompatible polymer by removing air through microparticle pores and replacing air with fluorinated gas.  
 DERWENT CLASS: A96 B04 E16 E36 P31 S05  
 INVENTOR(S): BERNSTEIN, H; BRUSH, H T; STRAUB, J A; WING, R E  
 PATENT ASSIGNEE(S): (ACUS-N) ACUSPHERE INC  
 COUNTRY COUNT: 1  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 6132699	A	20001017	(200103)*		10

#### APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 6132699	A	Cont of US 1996-611248	19960305
		Cont of US 1996-745676	19961108
		US 1998-158295	19980922

#### FILING DETAILS:

PATENT NO	KIND	PATENT NO
US 6132699	A	Cont of US 5611344
		Cont of US 5853698

PRIORITY APPLN. INFO: US 1996-611248 19960305; US 1996-745676 19961108; US 1998-158295 19980922

AN 2001-023081 [03] WPIDS

CR 1997-200939 [18]; 1997-470498 [43]; 1999-094805 [08]

AB US 6132699 A UPAB: 20010116

NOVELTY - Methods for enhancing the echogenicity of porous microparticles formed of air and a synthetic biocompatible polymer in which the polymer is soluble in an organic solvent by:

(a) removing the air through the pores of the microparticle; and

(b) replacing the air with a fluorinated gas to image the microparticle after administration to a patient.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for compositions for administration to patients for imaging with ultrasound.

ACTIVITY - Diagnostic; ultrasound contrast agent.

USE - The methods are used in ultrasound imaging (claimed), particularly micro encapsulated ultrasound imaging contrast agents. They may be used in a variety of diagnostic ultrasound imaging applications, particularly in blood vessel imaging and echocardiography as well as to detect liver and renal diseases, in cardiological applications, to detect and characterize tumor masses and tissues and also to measure peripheral blood viscosity.

ADVANTAGE - The methods provide enhanced echogenicity by including a fluorinated gas within the microparticles.

Dwg.0/0

L19 ANSWER 34 OF 67 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN  
 ACCESSION NUMBER: 2000-514100 [46] WPIDS  
 DOC. NO. NON-CPI: N2000-379906  
 DOC. NO. CPI: C2000-153350  
 TITLE: Biocompatible surgical plate useful for fixing bone and cartilage includes fastener openings and channels for attaching sutures.  
 DERWENT CLASS: A96 B04 B07 D22 L02 P31  
 INVENTOR(S): COOPER, K L; OVERAKER, D W  
 PATENT ASSIGNEE(S): (ETHI) ETHICON INC  
 COUNTRY COUNT: 1  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 6093201	A	20000725	(200046)*		9

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 6093201	A	US 1999-233569	19990119

PRIORITY APPLN. INFO: US 1999-233569 19990119

AN 2000-514100 [46] WPIDS

AB US 6093201 A UPAB: 20000921

NOVELTY - Biocompatible plate having (a) fastener openings extending through the plate from the upper surface to the lower surface and (b) one or more channels traversing the plate for attaching at least one suture is new.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a biocompatible plate having (i) fastener openings extending through the plate from the upper surface to the lower surface, (ii) risers extending from the lower surface and (iii) one or more channels for attaching at least one suture to the plate

USE - The plate is useful for fixing bone and cartilage, especially hard tissue of the cranium and face, and for other plastic/reconstructive procedures.

ADVANTAGE - The channels allow attached sutures to nestle against the plate for better post-surgical cosmesis.

DESCRIPTION OF DRAWING(S) - The figure shows the lower surface of a multilobed plate with screw holes for fastening the plate to bone and channels for receiving sutures.

Screw holes 4

Channels. 6

Dwg.2/4



L19 ANSWER 35 OF 67 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN  
 ACCESSION NUMBER: 2000-259127 [23] WPIDS  
 DOC. NO. CPI: C2000-079413  
 TITLE: Preparation of a bioabsorbable block copolymer filament  
 for use as sutures comprises extruding, to transesterify,  
 a mixture of two bioabsorbable polymeric components.  
 DERWENT CLASS: A23 A96 D22 F01  
 INVENTOR(S): JONN, J Y; ROBY, M; ROBY, M S  
 PATENT ASSIGNEE(S): (USSU) US SURGICAL CORP  
 COUNTRY COUNT: 27  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
EP 992529	A2	20000412	(200023)*	EN	8
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI					
CA 2282164	A1	20000409	(200037)	EN	
US 6287499	B1	20010911	(200154)		

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 992529	A2	EP 1999-118061	19990923
CA 2282164	A1	CA 1999-2282164	19990914
US 6287499	B1 Provisional	US 1998-103761P	19981009
		US 1999-391845	19990908

PRIORITY APPLN. INFO: US 1998-103761P 19981009; US 1999-391845  
 19990908

AN 2000-259127 [23] WPIDS

AB EP 992529 A UPAB: 20000516

NOVELTY - Preparation of a bioabsorbable block copolymer filament  
 comprises: (a) providing a mixture of particles of a first bioabsorbable  
 polymeric component and particles of a second bioabsorbable polymeric  
 component; (b) extruding the mixture of particles under conditions  
 sufficient to transesterify the first and second polymeric components to  
 produce a bioabsorbable copolymer filament.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for: (a)  
 A surgical device made from the filament; and (b) a suture made from the  
 filament.

USE - The prepared filament is used as a surgical device (claimed),  
 for example a suture (claimed).

ADVANTAGE - Formation of a copolymer having a well defined block  
 structure with little shuffling between the blocks. The polymeric  
 components can each be a homopolymer or a copolymer.

DESCRIPTION OF DRAWING(S) - The diagram represents apparatus suitable  
 for carrying out the method to form a filament.

Extruder unit 10

Zones A, B, C A, B, C

Barrel 11

Drier-hopper 12

Motor-driven metering pump 13

Spin pack 14

Spinneret 15

Molten filament 16

Quench bath 17

Air gap 17  
Driven roller 18  
Idle rollers 19,20  
Dwg.1/2

L19 ANSWER 36 OF 67 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN  
DUPLICATE 6

ACCESSION NUMBER: 2000:279509 BIOSIS  
DOCUMENT NUMBER: PREV200000279509  
TITLE: Photopolymerizable biodegradable hydrogels as tissue  
contacting materials and controlled-release carriers.  
AUTHOR(S): Hubbell, Jeffrey A. [Inventor, Reprint author];  
**Pathak, Chandrashekhar P.** [Inventor]; Sawhney,  
Amarpreet S. [Inventor]; Desai, Neil P. [Inventor];  
Hill-West, Jennifer L. [Inventor]  
CORPORATE SOURCE: Austin, TX, USA  
ASSIGNEE: Board of Regents, The University of Texas System,  
USA  
PATENT INFORMATION: US 5986043 November 16, 1999  
SOURCE: Official Gazette of the United States Patent and Trademark  
Office Patents, (Nov. 16, 1999) Vol. 1228, No. 3. e-file.  
CODEN: OGUPE7. ISSN: 0098-1133.  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
ENTRY DATE: Entered STN: 6 Jul 2000  
Last Updated on STN: 7 Jan 2002

AB Hydrogels of **polymerized** and **crosslinked** macromers  
comprising hydrophilic oligomers having biodegradable monomeric or  
oligomeric extensions, which biodegradable extensions are terminated on  
free ends with end cap monomers or oligomers capable of polymerization and  
cross linking are described. The hydrophilic core itself may be  
degradable, thus combining the core and extension functions. Macromers  
are polymerized using free radical initiators under the influence of long  
wavelength ultraviolet light, visible light excitation or thermal energy.  
Biodegradation occurs at the linkages within the extension oligomers and  
results in fragments which are non-toxic and easily removed from the body.  
Preferred applications for the hydrogels include prevention of adhesion  
formation after surgical procedures, controlled release of drugs and other  
bioactive species, temporary protection or separation of tissue surfaces,  
adhering of sealing tissues together, and preventing the attachment of  
cells to tissue surfaces.

L19 ANSWER 37 OF 67 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1999:244714 HCAPLUS  
DOCUMENT NUMBER: 130:282876  
TITLE: Injection-moldable compositions of polycaprolactone,  
polyoxyalkylenes and polyoxyethylene fatty esters  
INVENTOR(S): Dong, Liang C.; Ferrari, Vincent J.; Pollock, Crystal;  
Shafi, Keru O.; Smith, Ted; Wong, Patrick S. L.  
PATENT ASSIGNEE(S): Alza Corporation, USA  
SOURCE: PCT Int. Appl., 24 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 9918159 A1 19990415 WO 1998-US21041 19981006  
 W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,  
 DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE,  
 KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW,  
 MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR,  
 TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM  
 RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,  
 FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,  
 CM, GA, GN, GW, ML, MR, NE, SN, TD, TG  
 AU 9910684 A1 19990427 AU 1999-10684 19981006  
 US 6153678 A 20001128 US 1998-167372 19981006  
 PRIORITY APPLN. INFO.: US 1997-60976P P 19971006  
 WO 1998-US21041 W 19981006  
 AB Injection-moldable compns., useful in the manufacture of membranes for drug  
 delivery, contain polycaprolactone, a **polyalkylene oxide**  
 , and a polyoxyethylene fatty ester or ethylene oxide-propylene oxide  
 copolymer.  
 REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 38 OF 67 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN  
 ACCESSION NUMBER: 2000-072523 [06] WPIDS  
 DOC. NO. NON-CPI: N2000-056756  
 DOC. NO. CPI: C2000-020712  
 TITLE: Treating premature rupture of membranes during pregnancy  
 to extend degree of fetal maturity.  
 DERWENT CLASS: A96 B07 P31  
 INVENTOR(S): ENSCORE, D J; HERMAN, S J; KABLIK, J J; KAZO, G M  
 PATENT ASSIGNEE(S): (FOCA-N) FOCAL INC; (BIEN-I) BIENIARZ A  
 COUNTRY COUNT: 87  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 9960938	A1	19991202	(200006)*	EN	37
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ UG ZW W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZA ZW					
AU 9940948	A	19991213	(200020)		
EP 1079749	A1	20010307	(200114)	EN	
R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE					
US 6350463	B1	20020226	(200220)		
AU 745302	B	20020321	(200233)		
JP 2002516140	W	20020604	(200239)		40

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 9960938	A1	WO 1999-US11352	19990521
AU 9940948	A	AU 1999-40948	19990521
EP 1079749	A1	EP 1999-924451	19990521
		WO 1999-US11352	19990521
US 6350463	B1 Provisional	US 1998-86624P	19980523
		US 1999-316879	19990521
AU 745302	B	AU 1999-40948	19990521

JP 2002516140 W

WO 1999-US11352 19990521

JP 2000-550406 19990521

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 9940948	A Based on	WO 9960938
EP 1079749	A1 Based on	WO 9960938
AU 745302	B Previous Publ.	AU 9940948
	Based on	WO 9960938
JP 2002516140 W	Based on	WO 9960938

PRIORITY APPLN. INFO: US 1998-86624P 19980523; US 1999-316879  
19990521

AN 2000-072523 [06] WPIDS

AB WO 9960938 A UPAB: 20000203

NOVELTY - Treating premature rupture of membranes in pregnancy (PROM) comprises:

(a) applying a fluent material to a tissue from at least one of an amniotic membrane (3), a cervix (2) and a uterine wall (1); and

(b) causing the fluent material to become a non-fluent material.

The non-fluent material completely seal the tissue to retain the amniotic fluid.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a device for treating PROM comprising a proximal end for manipulation of the device, a distal end for insertion into the patient's body, and at least one lumen with an opening at the distal end of the device suitable for delivery of a fluent material.

USE - The method is used for treating premature rupture of the membranes in pregnancy for extending the degree of fetal maturity. It prevents or minimizes the fluid leakage. It can be used to seal the small incisions necessary for a surgery and also simplifies fetal surgery. It allows surgical opening of the membranes, e.g. in a caesarian section, to allow open surgery to be performed on the fetus

ADVANTAGE - The fluent material is **biocompatible** and non-toxic (claimed).

DESCRIPTION OF DRAWING(S) - The figure shows a schematic diagram of a gravid uterus.

Uterine wall 1

Cervix 2

Amniotic membrane 3

Abdominal wall 4

Transabdominal access route 5

Dwg.1/1

L19 ANSWER 39 OF 67 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN

ACCESSION NUMBER: 2000-086405 [07] WPIDS

DOC. NO. CPI: C2000-024023

TITLE: Hydrophobic and amphiphilic compounds for drug delivery modulation.

DERWENT CLASS: A96 B07

INVENTOR(S): BERNSTEIN, H; CHICKERING, D; KHATTAK, S; STRAUB, J A; STRAUB, J; CHICKERING, D E

PATENT ASSIGNEE(S): (ACUS-N) ACUSPHERE INC; (BERN-I) BERNSTEIN H; (CHIC-I) CHICKERING D; (KHAT-I) KHATTAK S; (STRA-I) STRAUB J

COUNTRY COUNT: 83

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 9956731	A1	19991111	(200007)*	EN	23
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ UG ZW					
W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH GM HR HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZW					
AU 9929954	A	19991123	(200016)		
BR 9910340	A	20010109	(200106)		
NO 2000005452	A	20001229	(200108)		
EP 1073422	A1	20010207	(200109)	EN	
R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE					
US 2001000230	A1	20010412	(200122)		
US 2001000470	A1	20010426	(200124)		
CN 1301150	A	20010627	(200158)		
KR 2001043136	A	20010525	(200168)		
US 2001043948	A1	20011122	(200176)		
JP 2002513752	W	20020514	(200236)		24
AU 746696	B	20020502	(200238)		
US 6423345	B1	20020723	(200254)		
NZ 508470	A	20030228	(200323)		
US 2003147962	A1	20030807	(200358)		
CA 2329875	C	20030916	(200362)	EN	
MX 2000010566	A1	20020501	(200368)		
US 6689390	B2	20040210	(200413)		

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 9956731	A1	WO 1999-US5187	19990308
AU 9929954	A	AU 1999-29954	19990308
BR 9910340	A	BR 1999-10340	19990308
		WO 1999-US5187	19990308
NO 2000005452	A	WO 1999-US5187	19990308
		NO 2000-5452	20001027
EP 1073422	A1	EP 1999-911269	19990308
		WO 1999-US5187	19990308
US 2001000230	A1 Provisional	US 1998-83636P	19980430
	Div ex	US 1999-255179	19990222
		US 2000-731412	20001206
US 2001000470	A1 Provisional	US 1998-83636P	19980430
	Div ex	US 1999-255179	19990222
		US 2000-730694	20001206
CN 1301150	A	CN 1999-806372	19990308
KR 2001043136	A	KR 2000-712030	20001028
US 2001043948	A1 Provisional	US 1998-83636P	19980430
		US 1999-255179	19990222
JP 2002513752	W	WO 1999-US5187	19990308
		JP 2000-546758	19990308
AU 746696	B	AU 1999-29954	19990308
US 6423345	B1 Provisional	US 1998-83636P	19980430
		US 1999-255179	19990222
NZ 508470	A	NZ 1999-508470	19990308
		WO 1999-US5187	19990308
US 2003147962	A1 Provisional	US 1998-83636P	19980430
	Div ex	US 1999-255179	19990222



		Cont of	US 2000-731412	20001206
			US 2003-383264	20030305
CA 2329875	C		CA 1999-2329875	19990308
			WO 1999-US5187	19990308
MX 2000010566	A1		WO 1999-US5187	19990308
			MX 2000-10566	20001027
US 6689390	B2	Provisional	US 1998-83636P	19980430
		Div ex	US 1999-255179	19990222
		Cont of	US 2000-731412	20001206
			US 2003-383264	20030305

## FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 9929954	A	Based on	WO 9956731
BR 9910340	A	Based on	WO 9956731
EP 1073422	A1	Based on	WO 9956731
JP 2002513752	W	Based on	WO 9956731
AU 746696	B	Previous Publ.	AU 9929954
		Based on	WO 9956731
NZ 508470	A	Based on	WO 9956731
US 2003147962	A1	Div ex	US 6423345
CA 2329875	C	Based on	WO 9956731
MX 2000010566	A1	Based on	WO 9956731
US 6689390	B2	Div ex	US 6423345

PRIORITY APPLN. INFO: US 1999-255179 19990222; US 1998-83636P 19980430; US 2000-731412 20001206; US 2000-730694 20001206; US 2003-383264 20030305

AN 2000-086405 [07] WPIDS

AB WO 9956731 A UPAB: 20000209

NOVELTY - Polymeric matrix for delivery of a prophylactic or therapeutic agent, comprising a biocompatible polymer and the agent incorporated in it, with also a hydrophobic or amphiphilic compound to modify the diffusion of water into the matrix and release of the agent from the matrix.

USE - The addition of the hydrophobic or amphiphilic compounds alters the release kinetics of the therapeutic or prophylactic agent; more specifically, water soluble drugs are released over longer periods, and poorly soluble, i.e., hydrophobic, over shorter. The hydrophobic compound may also prolong degradation of hydrolytically unstable polymers, further delaying release of the drug. A wide variety of drugs may be incorporated; diagnostic agents, having a detectable fluorescent, enzymatic, or chromatographic label may also be included. Examples mentioned include antibiotics, antivirals, vaccines, vasodilators, vasoconstrictors, immunomodulators, steroids and hormones, including reproductive and growth hormones, cytokines including interleukins, colony stimulating or tumor necrosis factors, interferons, oligonucleotides including genes and antisense, nucleases, bronchodilators, calcitonin, insulin, and erythropoietin. A preferred formulation is as microparticles.  
Dwg.0/0

L19 ANSWER 40 OF 67 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN

ACCESSION NUMBER: 1999-302990 [25] WPIDS

DOC. NO. CPI: C1999-088946

TITLE: Polymeric drug delivery system which can be administered as an injectable liquid, solidifies in vivo.

DERWENT CLASS: A96 B02 B07 C02 C07

INVENTOR(S): BURT, H; JACKSON, J; ZHANG, X; BURT, H M  
 PATENT ASSIGNEE(S): (ANGI-N) ANGIOTECH PHARM INC; (UYBR-N) UNIV BRITISH  
 COLUMBIA; (BURT-I) BURT H; (JACK-I) JACKSON J; (ZHAN-I)  
 ZHANG X  
 COUNTRY COUNT: 82  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 9921908	A1	19990506	(199925)*	EN	116
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW					
W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH GM HR HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW					
AU 9896176	A	19990517	(199939)		
US 2002164374	A1	20021107	(200275)		

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 9921908	A1	WO 1998-CA994	19981029
AU 9896176	A	AU 1998-96176	19981029
US 2002164374	A1 Provisional	US 1997-63721P	19971029
	Provisional	US 1998-76842P	19980304
		US 1998-181582	19981028

## FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 9896176	A Based on	WO 9921908

PRIORITY APPLN. INFO: US 1998-181582 19981028; US 1997-63721P  
 19971029; US 1998-76842P 19980304

AN 1999-302990 [25] WPIDS

AB WO 9921908 A UPAB: 20011203

NOVELTY - A polymeric drug delivery system which can be administered as an injectable liquid which solidifies in vivo, comprises:

(1) a biodegradable water insoluble polymer (including a new triblock copolymer (I));

(2) a water soluble polymer; and

(3) a hydrophobic drug.

DETAILED DESCRIPTION - A polymeric drug delivery system, which is a liquid or paste at 25 deg. C, comprises:

(a) biodegradable water insoluble polymer that is a solid or wax at 37 deg. C;

(b) a biodegradable water soluble polymer that is a liquid at 25 deg. C; and

(c) a hydrophobic drug.

INDEPENDENT CLAIMS are included for the following:

(1) triblock copolymers of formula ABA (I);

A = a block of residues comprising residues which remain after polymerization of 1 or more monomers M1;

M1 = hydroxyacetic acid, 2-hydroxypropionic acid or 6-hydroxyhexanoic acid;

B = a block of residues comprising residues which remain after the

polymerization of 1 or more monomers M2;

M2 = alkylene oxide or alkylene glycol; the copolymer being a paste or liquid at 25-40 deg. C and having a non-solid consistency at 25 deg. C; and

(2) a drug delivery system comprising a drug in combination with (I).

USE - The delivery system can be used in humans, farm and domestic animals. It is used to treat cancer, bacterial infections, psoriasis, inflammatory conditions (e.g. arthritis), fungal infections, vascular disease, ocular disease and diabetes, particularly for treating cancer, restenosis and arthritis and preventing post-surgical adhesion.

ADVANTAGE - Organic solvents are not required for dissolving drugs during manufacture or for solidification of implants. The implant solidifies slowly, allowing it to mold precisely to the required site.

L19 ANSWER 41 OF 67 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 7

ACCESSION NUMBER: 1998:564276 HCAPLUS

DOCUMENT NUMBER: 129:207210

TITLE: End-capped biocompatible polymers and their use

INVENTOR(S): Pathak, Chandrashekar

PATENT ASSIGNEE(S): USA

SOURCE: PCT Int. Appl., 52 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9835631	A1	19980820	WO 1998-US3020	19980211
W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			
AU 9861699	A1	19980908	AU 1998-61699	19980211

PRIORITY APPLN. INFO.:

US 1997-37151P P 19970214

US 1997-39261P P 19970303

WO 1998-US3020 W 19980211

AB The title polymers have  $\geq 1$  biodegradable region and one feature selected from the following: (1)  $\geq 3$  photocondensable regions, (2)  $\geq 1$  hydrophobic end group, and (3)  $\geq 2$  hydrophilic end groups. The end-capped biocompatible polymers and/or products produced therefrom may be used in a variety of applications, such as materials for use in biomedical devices, such as drug delivery vehicles, wound dressing, and the like. Thus, dl-lactide was polymerized onto xylitol and then end-capped with cinnamate groups by esterification of the polymer with cinnamoyl chloride to give a biocompatible polymer having  $\geq 3$  photocondensable groups. The prepared polymer was photocured with albumin as a model drug. Anal. of the albumin concentration indicated that the crosslinked polymer matrix was suitable for use as a drug delivery vehicle.

REFERENCE COUNT: 2

THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 42 OF 67 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN  
 ACCESSION NUMBER: 1998-230313 [20] WPIDS  
 CROSS REFERENCE: 2000-442067 [38]  
 DOC. NO. CPI: C1998-071928  
 TITLE: Protein concentrates, derived from e.g. whole blood -  
 produced by contact with denaturant hydrogel to absorb  
 water, useful as tissue sealant, as drug delivery agent  
 and for wound dressings.  
 DERWENT CLASS: A96 B04 B07 D22 P32  
 INVENTOR(S): PATHAK, C; ROWE, S C; PATHAK, C P;  
 EDELMAN, P G; SAWHNEY, A S  
 PATENT ASSIGNEE(S): (PATH-I) PATHAK C; (ROWE-I) ROWE S C; (INCE-N) INCEPT LLC  
 COUNTRY COUNT: 78  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 9812274	A1	19980326	(199820)*	EN	57
RW: AT BE CH DE DK EA ES FI FR GB GH GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW					
W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH HU IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW					
AU 9746486	A	19980414	(199839)		
US 2002114775	A1	20020822	(200258)		
US 2003012734	A1	20030116	(200308)		
US 2003077272	A1	20030424	(200330)		
US 2004002456	A1	20040101	(200402)		

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 9812274	A1	WO 1997-US16897	19970922
AU 9746486	A	AU 1997-46486	19970922
US 2002114775	A1	Provisional	US 1996-26536P
		Provisional	US 1997-39904P
		Provisional	US 1997-40417P
		Div ex	US 1999-147897
			US 2002-68807
US 2003012734	A1	Provisional	US 1996-26526P
		Provisional	US 1997-39904P
		Provisional	US 1997-40417P
		CIP of	WO 1997-US16897
		Provisional	US 1998-110849P
		CIP of	US 1999-147897
		CIP of	US 1999-454900
			US 2001-10715
US 2003077272	A1	Provisional	US 1996-26526P
		Provisional	US 1997-39904P
		Provisional	US 1997-40417P
		Div ex	WO 1997-US16897
		Div ex	US 1999-147897
		Cont of	US 2002-68807
			US 2002-293453
US 2004002456	A1	Provisional	US 1996-26526P
		Provisional	US 1997-39904P
		Provisional	US 1997-40417P

Div ex	WO 1997-US16897	19970922
Div ex	US 1999-147897	19990830
Cont of	US 2002-68807	20020205
	US 2003-364592	20030211

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 9746486	A Based on	WO 9812274

PRIORITY APPLN. INFO: US 1997-40417P 19970313; US 1996-26526P 19960923; US 1997-39904P 19970304; US 1998-110849P 19981204; US 1999-454900 19991203; US 2001-10715 20011109; US 2002-293453 20021113; US 2003-364592 20030211

AN 1998-230313 [20] WPIDS

CR 2000-442067 [38]

AB WO 9812274 A UPAB: 20040107

Protein concentrate is produced in a process which comprises:

- (a) contacting an input protein composition with a non-protein hydrogel denaturant;
- (b) maintaining contact to allow the hydrogel to absorb water from the composition; and
- (c) separating the protein concentrate phase from swollen hydrogel.

Also claimed are:

- (1) a **polymeric crosslinking** agent, comprising:
  - (a) an inert water soluble polymeric component;
  - (b) a biodegradable component, and
  - (c) a protein reactive functional component (when the crosslinking agent is difunctional, then the biodegradable is peptidic), and
- (2) a fibrinogen rich composition comprising fibrinogen and substantially no albumin.

USE - The method is useful for isolating concentrates from physiological fluids, e.g. blood, plasma, urine, CSF, saliva, milk, or peritoneal cavity fluid, and is especially useful for isolating fibrinogen rich compositions from blood. The fibrinogen can be used, in combination with thrombin and calcium ions as coagulation agents, to form fibrin gels with have a variety of applications, e.g. as tissue adhesives and sealants, haemostatic agents, wound healing agents and as vehicles for bioactive agent or drug delivery. As tissue sealants, the gels are of value in various surgical areas, e.g. cardiovascular, orthopaedics, ophthalmology, traumatology, neurosurgery, general surgery, plastic reconstruction, and maxillofacial surgery.

ADVANTAGE - The method is simple, efficient and rapid. Minimal handling of the fluid is required, and the troublesome cryoprecipitation step in the standard procedure is avoided.

Dwg.0/7

L19 ANSWER 43 OF 67 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 8

ACCESSION NUMBER: 1997:257385 HCAPLUS

DOCUMENT NUMBER: 126:242880

TITLE: Multiblock biodegradable hydrogels for use as controlled release agents for drugs delivery and tissue treatment agents

INVENTOR(S): **Pathak, Chandrashekhar P.**; Barman, Shikha P.; Philbrook, C. Michael; Sawhney, Amarpreet; Coury, Arthur J.; Avila, Luis Z.; Kieras, Mark T.

PATENT ASSIGNEE(S): Focal, Inc., USA



SOURCE: PCT Int. Appl., 58 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9705185	A2	19970213	WO 1996-US12285	19960726
WO 9705185	A3	19970313		
W: CA, JP				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 842209	A2	19980520	EP 1996-926138	19960726
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 11510837	T2	19990921	JP 1996-507762	19960726
US 6201065	B1	20010313	US 1996-692914	19960726
US 6410645	B1	20020625	US 2000-710416	20001109
US 2002151650	A1	20021017	US 2002-114722	20020402
US 6639014	B2	20031028		

PRIORITY APPLN. INFO.:  
 US 1995-1723P P 19950728  
 US 1996-692914 A3 19960726  
 WO 1996-US12285 W 19960726  
 US 2000-710416 A1 20001109

AB Gel-forming macromers including at least four polymeric blocks, at least two of which are hydrophobic and at least one of which is hydrophilic, and including a crosslinkable group are provided. The macromers can be covalently cross-linked to form a gel on a tissue surface in vivo. The gels formed from the macromers have a combination of properties including thermosensitivity and lipophilicity, and are useful in a variety of medical applications including drug delivery and tissue coating. E.g., Pluronic F127 lactate acrylates were prepared

L19 ANSWER 44 OF 67 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2000:667505 HCAPLUS  
 DOCUMENT NUMBER: 133:213217  
 TITLE: Biodegradable sutures  
 INVENTOR(S): Song, Soo-suk; Lee, Jin-hwan; Wee, Sang-baek; Ko, Young-joo  
 PATENT ASSIGNEE(S): Samyang Co., Ltd., S. Korea  
 SOURCE: Repub. Korea, No pp. given  
 CODEN: KRXXFC  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Korean  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
KR 126599	B1	19971226	KR 1994-40206	19941230

PRIORITY APPLN. INFO.: KR 1994-40206 19941230

AB The invention relates to a biodegradable surgical suture which is produced by copolymerizing 25-99.5 % of an aliphatic polyester monomer and 0.5-75 % of a p-hydroxymethyl cyclohexylcarboxylate compound. The polyester monomer is selected from one of **glycolide, lactide,  $\beta$ -propiolactone,  $\gamma$ -butyrolactone,  $\delta$ -valerolactone and  $\alpha,\alpha$ -dimethyl- $\beta$ -propiolactone**. The p-hydroxymethyl cyclohexylcarboxylate compound is p-hydroxymethyl cyclohexylcarboxylic acid

or an polyalkylene oxide thereof.

L19 ANSWER 45 OF 67 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 9  
 ACCESSION NUMBER: 1996:740267 HCAPLUS  
 DOCUMENT NUMBER: 126:11536  
 TITLE: Poly(hydroxy acid)/polymer conjugates for skin applications  
 INVENTOR(S): Coury, Arthur J.; Avila, Luis Z.; Pathak, Chandrashekhhar P.; Barman, Shikha P.  
 PATENT ASSIGNEE(S): Focal, Inc., USA  
 SOURCE: PCT Int. Appl., 42 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9629080	A1	19960926	WO 1996-US3177	19960308
W: CA, JP				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5618850	A	19970408	US 1995-401931	19950309
CA 2214884	AA	19960926	CA 1996-2214884	19960308
CA 2214884	C	20020507		
EP 814815	A1	19980107	EP 1996-910388	19960308
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 11502228	T2	19990223	JP 1996-528448	19960308
US 5879688	A	19990309	US 1996-739644	19961030
US 6261544	B1	20010717	US 1999-249841	19990215
PRIORITY APPLN. INFO.:			US 1995-401931 A	19950309
			WO 1996-US3177 W	19960308
			US 1996-739644 A3	19961030

AB A method for alleviating the symptoms of a cosmetic or dermatol. skin condition is described. An effective amount of a poly(hydroxy acid)/polymer conjugate in a pharmaceutically or cosmetically acceptable vehicle is provided. Topical compns. of the conjugates with another cosmetic or dermatol. agent, and compds. of the conjugates having attached physiol. active functional groups, are also provided. PEG-poly lactate (I) was prepared by treating PEG with DL-lactide. Dry powder of I was applied to dampened parts of the skin among volunteers, who reported silky feeling without tackiness.

L19 ANSWER 46 OF 67 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 10  
 ACCESSION NUMBER: 1996:388585 HCAPLUS  
 DOCUMENT NUMBER: 125:117257  
 TITLE: Absorbable block copolymers and surgical articles fabricated from them  
 INVENTOR(S): Roby, Mark S.; Liu, Cheng-Kung; Bennett, Steven L.  
 PATENT ASSIGNEE(S): United States Surgical Corp., USA  
 SOURCE: U.S., 8 pp., Cont.-in-part of U.S. 5, 403, 347.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 3  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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US 5522841	A	19960604	US 1994-366127	19941229
US 5403347	A	19950404	US 1994-204721	19940302
CA 2166352	AA	19960630	CA 1995-2166352	19951229
EP 719811	A2	19960703	EP 1995-120741	19951229
EP 719811	A3	19961113		
EP 719811	B1	20030416		
R: DE, ES, FR, GB, IT				
ES 2191694	T3	20030916	ES 1995-120741	19951229

PRIORITY APPLN. INFO.: US 1993-68811 B2 19930527  
US 1994-204721 A2 19940302  
US 1994-366127 A 19941229

AB Block copolymers have one of the block made from hard-phase-forming monomers such as **glycolide** and **lactide** and another block made from soft-phase-forming monomers such as 1,4-dioxan-2-one copolymer with randomly intermingled units of other soft-phase-forming monomers such as 1,3-dioxan-2-one. Particularly useful copolymers are initiated with a **polyalkylene oxide**. The copolymers are useful in forming surgical articles, especially both monofilament and multifilament sutures with good tensile and handling properties.

L19 ANSWER 47 OF 67 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN  
ACCESSION NUMBER: 1997-087023 [08] WPIDS  
DOC. NO. CPI: C1997-028217  
TITLE: Preparation of microparticles for diagnostic imaging - comprises dissolving biocompatible polymer in solvent, adding to imaging solution, then spray drying and incorporating a gas.  
DERWENT CLASS: A96 B04  
INVENTOR(S): CHICKERING, D E; JACOB, J S; MATHIOWITZ, E  
PATENT ASSIGNEE(S): (UYBR-N) UNIV BROWN RES FOUND  
COUNTRY COUNT: 64  
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 9640277	A2	19961219	(199708)*	EN	39
RW: AT BE CH DE DK EA ES FI FR GB GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG					
W: AL AM AU BB BG BR CA CN CZ EE FI GE HU IL IS JP KG KP KR LK LR LT LV MD MG MK MN MX NO NZ PL RO SG SI SK TR TT UA UZ VN					
AU 9663780	A	19961230	(199716)		
WO 9640277	A3	19970501	(199732)		

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 9640277	A2	WO 1996-US8378	19960603
AU 9663780	A	AU 1996-63780	19960603
WO 9640277	A3	WO 1996-US8378	19960603

## FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 9663780	A Based on	WO 9640277

PRIORITY APPLN. INFO.: US 1995-487775 19950607

AN 1997-087023 [08] WPIDS

AB WO 9640277 A UPAB: 19970228

Preparation of microparticles (MP) for diagnostic imaging of a human or other animal comprises: (i) dissolving a biocompatible synthetic polymer (BSP) in a solvent to form a solution; (ii) adding an imaging agent (IA); and (iii) spray drying while simultaneously incorporating a gas into polymer solution to form microparticles having IA incorporated to be detectable after admin. to a patient.

Also claimed are MP, and a method of imaging tissue in a patient comprising admin. of MP and detecting their location.

The imaging agent is the gas pref. air, NO<sub>2</sub>, N<sub>2</sub>, O<sub>2</sub>, Ar, Xe, He or perfluorocarbons and MP have a void volume of 5-98% by volume polymer. The polymer is biodegradable and is pref. a poly(hydroxy acid), polyanhydride, polyorthoester, polyamide, polycarbonate, polyalkylene, polyalkylene glycol, polyalkylene **oxide**, **polyalkylene** terephthalate, PVA, polyvinyl ether, polyvinyl ester, polyvinyl halide, polyvinyl pyrrolidone, polyglycolide, polysiloxane, poly(vinyl alcohol), poly(vinyl acetate), polystyrene, polyurethane, synthetic cellulose, polyacrylic acids, poly(butyric acid), poly(valeric acid), and poly(**lactide** -co-**caprolactone**), or the polymer is a poly(hydroxy and) combined with a **polyalkylene oxide**.

USE - The microspheres may be used in a variety of imaging application including cardiology blood perfusion, and organ and peripheral vein imaging in a variety of diagnostic procedures including ultrasound, MRI, fluoroscopy, X-ray and computerised tomography and echocardiology.  
Dwg.0/2

L19 ANSWER 48 OF 67 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN

ACCESSION NUMBER: 1996-286449 [29] WPIDS

DOC. NO. CPI: C1996-091591

TITLE: **Biodegradable**, capped alkylene-oxide -lactone copolymer - having enhanced **biodegradability** and flexibility of properties such as solubility and foam control.

DERWENT CLASS: A23 A25 A97 D25 H07

INVENTOR(S): NACE, V M

PATENT ASSIGNEE(S): (DOWC) DOW CHEM CO

COUNTRY COUNT: 70

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 5525702	A	19960611	(199629)*		13
WO 9636656	A1	19961121	(199701)	EN	24
RW: AT BE CH DE DK EA ES FI FR GB GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG					
W: AL AM AT AU AZ BB BG BR BY CA CH CN CZ DE DK EE ES FI GB GE HU IS JP KE KG KR KZ LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK TJ TM TR TT UA UG US UZ					
AU 9656669	A	19961129	(199712)		
EP 826012	A1	19980304	(199813)	EN	
R: AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE					
TW 338050	A	19980811	(199850)		
EP 826012	B1	20010516	(200128)	EN	
R: AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE					
ES 2156278	T3	20010616	(200141)		
DE 69612848	E	20010621	(200143)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 5525702	A	US 1995-444117	19950518
WO 9636656	A1	WO 1996-US5672	19960423
AU 9656669	A	AU 1996-56669	19960423
EP 826012	A1	EP 1996-913828	19960423
		WO 1996-US5672	19960423
TW 338050	A	TW 1996-105859	19960517
EP 826012	B1	EP 1996-913828	19960423
		WO 1996-US5672	19960423
ES 2156278	T3	EP 1996-913828	19960423
DE 69612848	E	DE 1996-612848	19960423
		EP 1996-913828	19960423
		WO 1996-US5672	19960423

## FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 9656669	A Based on	WO 9636656
EP 826012	A1 Based on	WO 9636656
EP 826012	B1 Based on	WO 9636656
ES 2156278	T3 Based on	EP 826012
DE 69612848	E Based on	EP 826012
	Based on	WO 9636656

PRIORITY APPLN. INFO: US 1995-444117 19950518

AN 1996-286449 [29] WPIDS

AB US 5525702 A UPAB: 19960724

A **biodegradable**, capped alkylene oxide-lactone copolymer comprises polymerised: (A) alkylene oxide units derived from an alkylene oxide of formula (I) (where R = H, 1-6C alkyl or alkoxy radical, or two R together with both vicinal epoxy carbons forms a saturated or monoethylenically unsatd. cycloaliphatic hydrocarbon ring); and (B) lactone units derived from a lactone of formula (II) (where n = at least 2; R' = H, 1-4C alkyl, cyclohexyl, 1-4C alkoxy or a single ring aromatic hydrocarbon radical; with the proviso that at least four R' are H). The cap comprises a polymer block of polymerised alkene oxide units derived from an alkylene oxide of formula (I) above. Also claimed are: (i) a **biodegradable** alkylene oxide-lactone copolymer prepared by contacting under copolymerisation conditions (A) and (B) above with (C) a polyfunctional initiator of formula (V): R<sub>v</sub>(YH)<sub>z</sub> (where R<sub>v</sub> = aliphatic, cycloaliphatic, aromatic or heterocyclic radical; z = at least 2; Y = -O-, -S-, -NH or -NR<sub>vi</sub>-; R<sub>vi</sub> = alkyl, aryl, aralkyl or cycloalkyl radical); (ii) a catalyst selected from alkali metal hydroxides, alkaline earth hydroxides and Lewis acids, in an amount that will promote the copolymerisation of the alkylene oxide and the lactone; and (iii) surfactant, foam control agent or lubricant comprising the copolymers above.

USE - Polyoxyalkylene block copolymers and homopolymers are widely used as nonionic surfactants, foam control agents, mineral wetting agents, surfactants for use in cleaning formulations, emulsifiers, de-emulsifiers, dispersants, synthetic lubricants and any other application where surfactancy, lubricity or foam control is important.

ADVANTAGE - The presence of the lactone in the first block introduces ester functionality into the copolymer, which in turn enhances the overall **biodegradability** of the copolymer. This ester functionality in combination with the **polyalkylene oxide** cap imparts a



design flexibility to the copolymer that allows changes to the copolymer structure that effect the solubility, **biodegradability** and foam control properties of the copolymer.

Dwg.0/6

L19 ANSWER 49 OF 67 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN  
 ACCESSION NUMBER: 1996-130749 [14] WPIDS  
 DOC. NO. CPI: C1996-040862  
 TITLE: The water sensitive hot melt adhesive compsn. - comprises A-B-A linear or radial rubbery block copolymer, water solution or water dispersible plasticiser, tackifying resin, thermoplastic polymer, hydrophilic polymer and modified or derivatised starch, polar wax and stabiliser.  
 DERWENT CLASS: A18 A23 A25 A81 G03  
 INVENTOR(S): KAUFFMAN, T F; SCHMIDT, R C; SHARAK, M L; KAUFFMANN, T F  
 PATENT ASSIGNEE(S): (ABLE-N) ABLESTIK LAB; (NATT) NAT STARCH & CHEM INVESTMENT; (NATT) NAT STARCH & CHEM INVESTMENT HOLDING COR  
 COUNTRY COUNT: 9  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
EP 699727	A1	19960306	(199614)*	EN	10
R: DE FR GB IT NL SE					
CA 2156438	A	19960301	(199624)		
US 5532306	A	19960702	(199632)		6
CA 2156438	C	19990608	(199941)	EN	
EP 699727	B1	19990908	(199941)	EN	
R: DE FR GB IT NL SE					
DE 69511972	E	19991014	(199949)		
MX 193346	B	19990914	(200067)		

#### APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 699727	A1	EP 1995-108734	19950607
CA 2156438	A	CA 1995-2156438	19950818
US 5532306	A	US 1994-298736	19940831
CA 2156438	C	CA 1995-2156438	19950818
EP 699727	B1	EP 1995-108734	19950607
DE 69511972	E	DE 1995-611972	19950607
		EP 1995-108734	19950607
MX 193346	B	MX 1995-3566	19950818

#### FILING DETAILS:

PATENT NO	KIND	PATENT NO
DE 69511972	E Based on	EP 699727

PRIORITY APPLN. INFO: US 1994-298736 19940831

AN 1996-130749 [14] WPIDS

AB EP 699727 A UPAB: 19960405

A water sensitive hot melt adhesive compsn. consists of: (a) 5-80 weight% of a A-B-A linear or radial rubbery block copolymer; (b) 10-50 weight% of a water soluble or water dispersible plasticiser containing a hydrophilic portion consisting of a **polyalkylene oxide** and a hydrophobic

portion consisting of a hydrocarbon radical from phenyl, phenyl alkyl, phenyl dialkyl or (un)branched aliphatic radical and having an HLB value of 8 and 18; (c) 0-8 weight% of a compatible tackifying resin; (d) 0-30 weight% of a compatible thermoplastic polymer from ethylene vinyl acetate copolymers containing 12-50% vinyl acetate, ethylene acrylic acid, ethylene methyl acrylate, ethylene n-butyl acrylate, **caprolactone** polymers and poly(hydroxy-butyrate/hydroxyvalerate); (e) 0-20 weight% of a hydrophilic polymer from polyvinyl alcohol, hydroxyethyl cellulose, hydroxy-propyl cellulose, polyvinyl methyl ether, poly(ethylene oxide) and modified or derivatised starch; (f) 0-35 weight% polar wax; and (g) 0-3 weight% stabiliser.

USE - Mfr. of sanitary napkins, disposable diapers, hospital gowns, bed pads and the like. In partic., adhesives are useful for the assembly of disposable articles using multi-line, spray, or slot-coating construction techniques where flexible film substrate(s) is bonded to tissue, non-woven, polyolefin or other flexible polymeric film substrate(s).

ADVANTAGE - The adhesives are characterised by possessing high tack when needed yet have the ability to lose tack upon contact with water while, at the same time, possessing superior thermal stability and creep resistance.

Dwg.0/0

ABEQ US 5532306 A UPAB: 19960819

A water sensitive hot melt adhesive compsn. consisting essentially of 5-80 %wt. of a A-B-A linear or radial rubbery block; 10-50 %wt. of a water soluble or water dispersible plasticizer contg. a hydrophilic portion consisting of a **polyalkylene oxide** and a hydrophobic portion consisting of a hydrocarbon radical selected from phenyl, phenyl-alkyl, phenyl-dialkyl or a linear or branched aliphatic radical and having an HLB value of 8-18; 0-85 %wt. of a compatible tackifying resin; 0-30 %wt. of a compatible thermoplastic polymer selected from ethylene vinyl acetate copolymers contg. 12-50 % vinyl acetate, ethylene acrylic acid, ethylene methyl acrylate, ethylene n-butyl acrylate, **caprolactone** polymers and poly(hydroxy-butyrate/hydroxy-valerate); 0-35 %wt. polar wax; and 0-3 %wt. stabilizer.

Dwg.0/0

L19 ANSWER 50 OF 67 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1995:636256 HCAPLUS

DOCUMENT NUMBER: 123:258747

TITLE: Rapidly biodegradable polymer compositions

INVENTOR(S): Takagi, Shuji; Nakanishi, Hideki; Osada, Manabu; Takemori, Shinichi

PATENT ASSIGNEE(S): Sumitomo Seika KK, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07062220	A2	19950307	JP 1993-234249	19930825
JP 3368944	B2	20030120		

PRIORITY APPLN. INFO.: JP 1993-234249 19930825

AB The title compns., useful for fishing feed containers, food packaging, etc., contain 20-80 parts biodegradable plastics and 80-20 parts crosslinked poly(alkylene oxides). Thus, after 200 mL PhMe was distilled off

from a mixture of 80 g poly(ethylene oxide) [weight-average mol. weight (Mw) 11,000], 20 g poly(propylene oxide) (Mn 4000), 500 mL PhMe (to remove H<sub>2</sub>O), MDI 7.5, 1,4-butanediol 0.73, and triethylenediamine 0.023 g were added and heated at 110° for 3 h to obtain 100 g of a crosslinked poly(alkylene oxide), 60 parts of which was mixed with 40 parts Bionolle to obtain a biodegradable composition. The composition was melt-mixed and inflated into a 50- $\mu$ m film, which was broken beyond recognition (damage  $\geq$ 80%) even after 10 days when immersed in an activated sludge water.

L19 ANSWER 51 OF 67 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED.  
on STN DUPLICATE 11

ACCESSION NUMBER: 95107846 EMBASE  
DOCUMENT NUMBER: 1995107846  
TITLE: Photo-crosslinked copolymers of 2-hydroxyethyl methacrylate, poly(ethylene glycol) tetra-acrylate and ethylene dimethacrylate for improving biocompatibility of biosensors.  
AUTHOR: Quinn C.P.; Pathak C.P.; Heller A.; Hubbell J.A.  
CORPORATE SOURCE: Department of Chemical Engineering, The University of Texas at Austin, Austin, TX 78712-1062, United States  
SOURCE: Biomaterials, (1995) 16/5 (389-396).  
ISSN: 0142-9612 CODEN: BIMADU  
COUNTRY: United Kingdom  
DOCUMENT TYPE: Journal; Article  
FILE SEGMENT: 027 Biophysics, Bioengineering and Medical Instrumentation  
LANGUAGE: English  
SUMMARY LANGUAGE: English

AB A copolymer containing 88% 2-hydroxyethyl methacrylate (HEMA), 9% poly(ethylene glycol) (MW 18.5 kDa) tetra-acrylate and 3% ethylene dimethacrylate was prepared and evaluated for use as a biocompatible interface between glucose biosensors and tissue in the rat. The glucose sensor utilizes glucose oxidase that is electrically 'wired' to a gold current collector by a reduction-oxidation **polymer**. Coatings of the copolymer were **crosslinked** in situ on the sensors using long wavelength ultraviolet light and 2,2-dimethoxy-2-phenyl-acetophenone as the initiator. The effect these films had on the current response to glucose was measured. Over a glucose concentration range of 0-30 mM, the average percentage decrease in response was  $45 \pm 28\%$  (mean  $\pm$  95% confidence interval) at 37°C for films that were about 0.1 mm thick, an acceptable value. Copolymer-treated and control electrodes were implanted in the intrascapular subcutaneous tissue of male Sprague-Dawley rats for three days. The explanted samples were evaluated using scanning electron microscopy. The control electrodes were highly encapsulated with fibrous material, while the copolymer-treated electrodes induced much less encapsulation. The results show this copolymer to be a candidate as a biocompatible coating for electrically wired oxidoreductase-based subcutaneous biosensors.

L19 ANSWER 52 OF 67 HCAPLUS COPYRIGHT 2004 ACS on STN  
ACCESSION NUMBER: 1995:843366 HCAPLUS  
DOCUMENT NUMBER: 123:321865  
TITLE: Biodegradable thermoresponsive hydrogels and macromonomers  
AUTHOR(S): Pathak, C. P.; Barman, S. P.; Coury, A. J.; Sawhney, A. S.; Hubbell, J. A.

CORPORATE SOURCE: Focal Interventional Therapeutics, Lexington, MA,  
02173, USA

SOURCE: Proceedings of the International Symposium on  
Controlled Release of Bioactive Materials (1995),  
22nd, 85-6  
CODEN: PCRMEY; ISSN: 1022-0178

PUBLISHER: Controlled Release Society, Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Thermosensitive macromonomers which can be photopolymd. were synthesized  
and characterized. The polymerized hydrogels are dimensionally  
thermoresponsive and degrade under physiol. conditions.

L19 ANSWER 53 OF 67 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN

ACCESSION NUMBER: 1994-027649 [04] WPIDS

DOC. NO. CPI: C1994-012715

TITLE: Polyurethane-urea elastomer used for belts and industrial  
parts - comprises poly-isocyanate component obtd. by  
reacting 1,5-naphthalene di-isocyanate with a poly-ol,  
and an aromatic di-amine component, having good dynamic  
properties.

DERWENT CLASS: A25 A88

INVENTOR(S): KATO, K; OYAIZU, Y; KANEYOSHI, K

PATENT ASSIGNEE(S): (IHAR) IHARA CHEM IND CO LTD; (IHAR) IHARA CHEM KOGYO KK

COUNTRY COUNT: 8

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
EP 579989	A1	19940126	(199404)*	EN	10
R: DE FR GB					
JP 06016765	A	19940125	(199408)		12
CA 2099197	A	19940103	(199412)		
US 5410009	A	19950425	(199522)		6
TW 252123	A	19950721	(199539)		
EP 579989	B1	19970903	(199740)	EN	13
R: DE FR GB					
DE 69313550	E	19971009	(199746)		
KR 9707321	B1	19970507	(199941)		
JP 3220873	B2	20011022	(200169)		6
CA 2099197	C	20030819	(200357)	EN	

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 579989	A1	EP 1993-110448	19930630
JP 06016765	A	JP 1992-197501	19920702
CA 2099197	A	CA 1993-2099197	19930625
US 5410009	A	US 1993-82368	19930628
TW 252123	A	TW 1993-104881	19930621
EP 579989	B1	EP 1993-110448	19930630
DE 69313550	E	DE 1993-613550	19930630
		EP 1993-110448	19930630
KR 9707321	B1	KR 1993-12274	19930701
JP 3220873	B2	JP 1992-197501	19920702
CA 2099197	C	CA 1993-2099197	19930625

## FILING DETAILS:

PATENT NO	KIND	PATENT NO
DE 69313550	E Based on	EP 579989
JP 3220873	B2 Previous Publ.	JP 06016765

PRIORITY APPLN. INFO: JP 1992-197501 19920702

AN 1994-027649 [04] WPIDS

AB EP 579989 A UPAB: 19940307

A polyurethane elastomer is claimed which is obtd. by reacting a polyisocyanate component, which is the reaction prod. of 1,5-naphthalene diisocyanate and a polyol, with an amine component of formula (I).

Also claimed is a polyurethane-urea elastomer obtd. by reacting a polyisocyanate component, which is the reaction prod. of 1,5-naphthalene diisocyanate and a polyol, with a mixture of an amine of the formula (I) and an aromatic di:amine mixed with the amine cpd. R = bivalent polyalkylene polyether or polyalkylene polyester having a mol.weight of at least 200, opt. containing unsatd. bonds in the polyalkylene.

The aromatic di:amine is from diamino:di:phenylmethane-type aromatic di:amine(s) of formula (II) and aminobenzoate type aromatic di:amine(s) of formulae (III) and (IV). X and Y = halogen, opt. branched alkyl, trifluoromethyl, alkoxy carbonyl or H; and n and m = 1-4; A = -CO-O-(CH<sub>2</sub>)<sub>1</sub>-O-CO- or -CO-(OCH<sub>2</sub>CH<sub>2</sub>)<sub>1</sub>-O-CO-; i = 1-4; R' = opt. branched lower alkyl; and n' = 1-3. Pref. the aromatic di:amine is 4,4'-methylenebis(2,3- or 2,5-dichloroaniline), 4,4'-methylenebis(2-(m)ethylalaniline), 4,4'-methylenebis(2-isopropylaniline), 4,4'-methylenebis(2,6-di(m)ethylalaniline), 4,4'-methylenebis(2-ethyl-6-methylalaniline), 4,4'-methylene bis(2-chloro-6-methylalaniline), 4,4-methylenebis(2-chloro-6-ethylalaniline), 4,4'-methylenebis(3-chloro-2,6-diethylalaniline), 4,4'-methylenebis(2-trifluoromethylalaniline), 4,4'-methylenebis(2-methoxycarbonylaniline), 1,3-propanediolbis(4-aminobenzoate), 1,4-butanediolbis(4-aminobenzoate), di- or tri-ethylene glycol bis(4-aminobenzoate), isopropyl 4-chloro-3,5-diaminobenzoate or isobutyl 4-chloro-3,5-diaminobenzoate. The polyol is a formula (V). Pref. the polyol comprises aliphatic polyester glycols obtd. by condensing an aliphatic glycol with a dicarboxylic acid for chain extension, polyalkylene ether glycols obtd. by ring-opening polymerisation of a **polyalkylene oxide** of a polyalkylene intramolecular ether, polyester glycols obtd. by ring-opening polymn. of epsilon-**caprolactone**, polyol cpds. obtd. by hydroxylating the terminal gps. of a polybutadiene, polyol cpds. obtd. by copolymerising a copolymer of at least two alkylene oxides with at least two glycols and dicarboxylic acids, and mixts. of aromatic glycols.

USE/ADVANTAGE - The elastomer is useful for industrial rolls, belts, blankets or industrial parts. The elastomer has good impact resilience and flexural properties while maintaining good static properties. In an example, 100 pts.weight polytetramethylene ether glycol mol.weight was heated

to

120 deg. C. and water was removed under a reduced pressure of 5 mmHg for 1 hr. After cooling to 100 deg. C., 30 pts. 1,5-naphthalene diisocyanate was added and the mixture was reacted at 125 deg. C. for 20 mins. The mixture was cooled to 90 deg. C. and defoamed. The NCO content of the polyisocyanate component was 5.9 weight%. To the polyisocyanate component at 90 deg. C. was added 109.6 pts. polytetramethylene ether glycol bis(4-aminobenzoate) and the mixture defoamed. The mixture was injected into a casting mould heated to 100 deg. C. and then cured for 15 mins. The moulded prod. was post-cured for 8 hrs. at 120 deg. C. and then aged at room temperature for 1 week. The Shore A hardness was 90 (93); tensile strength was 327 (518) kg/cm<sup>2</sup>; elongation was 800% (450); tear strength was 105 (122) kg/cm; impact



resilience was 72% (50); and De Mattia flex life (notched) was greater than 160 x 10<sup>3</sup> (5 x 10<sup>3</sup>) bending cycles. Valuerin brackets are for a comparative example (obtd. by reacting an polyisocyanate component comprising the reaction prod. of 4,4'-diphenylmethane diisocyanate and liquid 4,4'-diphenylmethane diisocyanate with polytetramethylene ether glycol, with an amine component comprising polytetramethylene ether glycol bis(4-aminobenzoate) and 4,4'-methylenebis(2-chloroaniline).

Dwg.0/0

ABEQ US 5410009 A UPAB: 19950609

The polyurethaneurea elastomer is obtd. by reacting a polyisocyanate component obtd. by reacting 1,5-naphthalene diisocyanate with a polyol, with an amine component consisting of an amine cpd. of general formula (I), pref. in mixt. with an aromatic diamine different from (I).

R is bivalent polyalkylene polyether or polyalkylene polyester having an average MW of 200 or more, which opt. contains unsatd. bonds in the polyalkylene.

USE/ADVANTAGE - Industrial rolls, belts and blankets. Provides improved impact resistance and flexural properties.

Dwg.0/0

ABEQ EP 579989 B UPAB: 19971006

A polyurethaneurea elastomer obtained by reacting a polyisocyanate component obtained by reacting 1,5-naphthalene diisocyanate with a polyol, with an amine component consisting essentially of an amine compound of the formula (1): wherein R is a bivalent polyalkylene polyether or polyalkylene polyester having an average molecular weight of at least 200, which may contain unsaturated bonds in the polyalkylene.

Dwg.0/0

L19 ANSWER 54 OF 67

MEDLINE on STN

DUPLICATE 12

ACCESSION NUMBER: 94365053 MEDLINE

DOCUMENT NUMBER: PubMed ID: 8083251

TITLE: Optimization of photopolymerized bioerodible hydrogel properties for adhesion prevention.

AUTHOR: Sawhney A S; Pathak C P; van Rensburg J J; Dunn R C; Hubbell J A

CORPORATE SOURCE: Department of Chemical Engineering, University of Texas, Austin 78712.

SOURCE: Journal of biomedical materials research, (1994 Jul) 28 (7) 831-8.

Journal code: 0112726. ISSN: 0021-9304.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199410

ENTRY DATE: Entered STN: 19941021

Last Updated on STN: 19941021

Entered Medline: 19941011

AB The aim of this study was to optimize the properties of a lubricious bioerodible hydrogel barrier for the prevention of postoperative adhesions. Water-soluble macromers based on block copolymers of poly(ethylene glycol) (PEG) and poly(lactic acid) or poly(glycolic acid) with terminal acrylate groups were used, and these macromers were gelled in vivo by exposure to long wavelength ultraviolet light. The precursor was photopolymerized from buffered saline solution while in contact with the tissues. This resulted in the conformal coating of the tissue with an adherent hydrogel film, while forming a nonadhesive barrier at the free surface, on the treated wound site. The hydrogels were evaluated in two animal models of postsurgical adhesions, first in a rat cecum abrasion

model and then in a rabbit uterine horn ischemia model. In the rat cecum model, six of seven animals treated with a hydrogel, with **glycolide** in the precursor as the comonomer, showed no adhesions; untreated animals and animals treated with precursor, but not gelled with light, showed consistent dense adhesions. In the rabbit uterine horn ischemia model, using hydrogels with **lactide** in the precursor as the comonomer, and PEG of molecular weight from 6,000 to 18,500 Da, adhesions were dramatically reduced, with occurrence in none of seven animals treated with a gel containing PEG 10,000. By contrast, the seven animals in the control group demonstrated a mean of 35% involvement of the horn length in dense, fibrous adhesions. These materials, photopolymerized in vivo in direct contact with the tissues, appear to form an adherent hydrogel barrier that is highly effective in reducing postoperative adhesions in the models used. (ABSTRACT TRUNCATED AT 250 WORDS)

L19 ANSWER 55 OF 67 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN  
 ACCESSION NUMBER: 1993-143058 [17] WPIDS  
 DOC. NO. CPI: C1993-064124  
 TITLE: Biodegradable alternating poly **lactide** block copolymers - useful as toughened plastics or elastomers, are obtd. by chain-extending the prod. from polymerising a lactone onto oligomeric diol or di amine.  
 DERWENT CLASS: A23 A26  
 INVENTOR(S): SPINU, M  
 PATENT ASSIGNEE(S): (DUPO) DU PONT DE NEMOURS & CO E I; (DUPO) DU PONT DE NEMOURS & CO INC E I  
 COUNTRY COUNT: 40  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 5202413	A	19930413	(199317)*		8
WO 9419384	A1	19940901	(199436)#		
RW: AT BE CH DE DK ES FR GB GR IE IT LU MC NL OA PT SE					
W: AU BB BG BR CA CZ FI HU JP KP KR LK MG MN MW NO NZ RO RU SD SK UA					
AU 9336698	A	19940914	(199502)#		
FI 9503852	A	19950815	(199544)#		
EP 684961	A1	19951206	(199602)#	EN	
R: DE FR GB SE					
JP 08506849	W	19960723	(199650)#		25
EP 684961	B1	19981111	(199849)#	EN	
R: DE FR GB SE					
DE 69322099	E	19981217	(199905)#		
JP 2984374	B2	19991129	(200002)#		8

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 5202413	A	US 1991-816201	19911231
WO 9419384	A1	WO 1993-US1382	19930216
AU 9336698	A	AU 1993-36698	19930216
FI 9503852	A	WO 1993-US1382	19930216
		FI 1995-3852	19950815
EP 684961	A1	EP 1993-905994	19930216
		WO 1993-US1382	19930216
JP 08506849	W	WO 1993-US1382	19930216
		JP 1994-518909	19930216

EP 684961	B1	EP 1993-905994	19930216
		WO 1993-US1382	19930216
DE 69322099	E	DE 1993-622099	19930216
		EP 1993-905994	19930216
		WO 1993-US1382	19930216
JP 2984374	B2	WO 1993-US1382	19930216
		JP 1994-518909	19930216

## FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 9336698	A	Based on	WO 9419384
EP 684961	A1	Based on	WO 9419384
JP 08506849	W	Based on	WO 9419384
EP 684961	B1	Based on	WO 9419384
DE 69322099	E	Based on	EP 684961
		Based on	WO 9419384
JP 2984374	B2	Previous Publ.	JP 08506849
		Based on	WO 9419384

PRIORITY APPLN. INFO: US 1991-816201 19911231; WO 1993-US1382  
 19930216; AU 1993-36698 19930216; FI 1995-3852  
 19950815; EP 1993-905994 19930216; JP  
 1994-518909 19930216; DE 1993-622099 19930216

AN 1993-143058 [17] WPIDS

AB US 5202413 A UPAB: 19990203

Block copolymers (I) with Mn above 10,000 have formula R-A-B-A-L-xA-B-A-R  
 A = polylactide, polyglycolide, or their copolymer, with Mn 500-40,000  
 (pref. 2,000-20,000); B - residue of an oligomeric diol or diamine having  
 Mn 500-20,000 (pref. 2,000-8,000); L = diacyl residue derived from an  
 8-20C aromatic diacyl chloride or diisocyanate; R = H or end-capping gp.;  
 and x = 1-100.

The A block are pref. polylactide blocks formed of at least 98% of  
 either L-lactide or D-lactide. The B blocks are  
 dioxy-terminated oligomeric diol residues having repeat units selected  
 from those of formulae R1-O -O-(CH2)m-O-C(R2--C(O)-), -(C9O)-R3-O-, and  
 -R4-Si(R5)2-O-Sr(R5)2-O-nSi(R5)2-R4-; T1 = (CH2)z, where z = 2-6; R2, R3 =  
 2-20C (cyclo)aliphatic or aromatic gp.; m = 2-6; R4 = 3-10C alkylene with  
 terminal OH; R5 = H, opt. unsatd. 1-20C aliphatic gp., 6-20C aromatic gp.,  
 or 1-20C perfluoroalkyl gp. and n = 15-150. Pref. B is a  
**polyalkylene oxide** block with R1 = (CH2)2 or (CH2)4; or  
 a poly(butylene-ethylene adipate) block; or a polycaprolactone block.

USE/ADVANTAGE - (I) have a structure composed of perfectly  
 alternating blocks A and B, in which the A blocks (and hence the polymer)  
 are biodegradable. Depending upon the components. (I) may take the form of  
 a toughened plastic, finding use as a general purpose moulding resin, or  
 an elastomeric material with applications such as rubber bands, seals,  
 etc..

Dwg.0/0

L19 ANSWER 56 OF 67 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN

ACCESSION NUMBER: 1993-281866 [36] WPIDS

DOC. NO. NON-CPI: N1993-216577

DOC. NO. CPI: C1993-125778

TITLE: Reduced friction coatings for articles in contact with  
 tissues - comprises an a-block having epsilon-  
**caprolactone** linkages and a b-block comprising  
 linkages subject to hydrolytic degradation in-vivo

randomly configured with the **caprolactone**  
linkages.

DERWENT CLASS: A23 A25 A96 D22 F06 P34  
INVENTOR(S): JARRETT, P K; JESSUP, G; MANEY, J W; MARTIN, C; ROSATI, L  
PATENT ASSIGNEE(S): (AMCY) AMERICAN CYANAMID CO  
COUNTRY COUNT: 23  
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
EP 558965	A2	19930908	(199336)*	EN	26
R: AT BE CH DE DK ES FR GB GR IE IT LI LU NL PT SE					
AU 9333917	A	19930909	(199343)		
CA 2090565	A	19930903	(199347)		
ZA 9301445	A	19931124	(199402)		49
JP 06041310	A	19940215	(199411)		20
TW 229217	A	19940901	(199439)		
US 5352515	A	19941004	(199439)		17
EP 558965	A3	19940420	(199523)		
US 5442016	A	19950815	(199538)		17
US 5530074	A	19960625	(199631)		16
AU 671976	B	19960919	(199645)		
US 5621050	A	19970415	(199721)		15
MX 184036	B	19970218	(199818)		
EP 558965	B1	20000816	(200040)	EN	
R: AT BE CH DE DK ES FR GB GR IE IT LI LU NL PT SE					
DE 69329210	E	20000921	(200055)		
ES 2149784	T3	20001116	(200064)		
JP 3494382	B2	20040209	(200413)		21

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 558965	A2	EP 1993-102107	19930211
AU 9333917	A	AU 1993-33917	19930301
CA 2090565	A	CA 1993-2090565	19930226
ZA 9301445	A	ZA 1993-1445	19930301
JP 06041310	A	JP 1993-61338	19930226
TW 229217	A	TW 1993-101783	19930310
US 5352515	A	US 1992-843053	19920302
EP 558965	A3	EP 1993-102107	19930211
US 5442016	A Div ex	US 1992-843053	19920302
		US 1994-230267	19940420
US 5530074	A Div ex	US 1992-843053	19920302
	Div ex	US 1994-230267	19940420
		US 1995-473825	19950607
AU 671976	B	AU 1993-33917	19930301
US 5621050	A Div ex	US 1992-843053	19920302
	Cont of	US 1994-230267	19940420
		US 1995-477685	19950607
MX 184036	B	MX 1993-1047	19930225
EP 558965	B1	EP 1993-102107	19930211
DE 69329210	E	DE 1993-629210	19930211
		EP 1993-102107	19930211
ES 2149784	T3	EP 1993-102107	19930211
JP 3494382	B2	JP 1993-61338	19930226

## FILING DETAILS:

PATENT NO	KIND		PATENT NO
US 5442016	A	Div ex	US 5352515
US 5530074	A	Div ex	US 5352575
		Div ex	US 5442016
AU 671976	B	Previous Publ.	AU 9333917
US 5621050	A	Div ex	US 5352515
		Cont of	US 5442016
DE 69329210	E	Based on	EP 558965
ES 2149784	T3	Based on	EP 558965
JP 3494382	B2	Previous Publ.	JP 06041310

PRIORITY APPLN. INFO: US 1992-843053 19920302; US 1994-230267  
 19940420; US 1995-473825 19950607; US  
 1995-477685 19950607

AN 1993-281866 [36] WPIDS

AB EP 558965 A UPAB: 19931122

A block copolymer comprises an A-block having epsilon **caprolactone** linkages and a B block having a polyalkyleneoxide. The A-block comprises linkages subject to hydrolytic degradation in vivo being randomly configured with the epsilon **caprolactone** linkages.

USE/ADVANTAGE - The surgical suture or ligature having the specified coating has reduced tissue friction (at least 10% less than uncoated suture or ligature) and the released friction remains after 2-20 passes through mammalian tissue having a thickness of up to 2cm. The coating provides adhesion preservation barrier for in vivo tissues. The coatings also provide improved performance to metal or ceramic surfaces, or catheters, or medical or veterinary implants, surgical needle, bone screws, pin or rod, surgical clip or staple or a film.

Dwg.3/9

ABEQ US 5352515 A UPAB: 19941122

Surgical filamentary device has a bioadsorbable coating which is mfd. from an ABA or AB block copolymer of glass transition temp. 16 deg C or less.

B block comprises poly(alkylene oxide) of mol wt. 5000-20,000. A block comprises a biodegradable random copolymer of **glycolide** and epsilon-**caprolactone**.

USE - As a suture or ligature, or knitted or woven mesh, having improved frictional properties.

Dwg.0/9

ABEQ US 5442016 A UPAB: 19950927

The AB(A) block copolymer having a (B) block comprising a poly(alkylene oxide), pref, poly(ethylene oxide) or poly(ethylene oxide-co-propylene oxide), having a number average MW of 5,000-20,000 and an (A) block; comprising a biodegradable random copolymer of (1) the cyclic ester of an alpha-hydroxy acid, pref. **glycolide**, and (2) epsilon-**caprolactone**. The AB(A) block polymer has a Tg of 16 deg.C or less. Pref. poly(alkylene oxide) comprises up to 95 wt.% and the ratio of **glycolide** to epsilon-**caprolactone** components is 5-50:50-95 by wt.

USE/ADVANTAGE - Medical articles which contact tissue or fluids. Improved frictional properties.

Dwg.0/9

ABEQ US 5530074 A UPAB: 19960808

A process for sterilizing a surgical filamentary film formed from an ABA or AB block copolymer having a (B) block comprising a poly (alkylene oxide) having a number of average molecular weight of about 5,000 to 20,000 and an (A) block comprising a biodegradable random copolymer of (1) the cyclic ester of an alpha-hydroxy acid and (2) epsilon-



**caprolactone**, wherein the ABA or AB block polymer has a glass transition temperature at or less than 16deg. C. and the first cyclic ester is **glycolide**, the filamentary film being coated with a lubricant manufactured from the ABA or AB block copolymer, and is manufactured from a nonabsorbable polymer selected from the group consisting of polybutester, polyester, nylon and silk, the process comprising:

packaging said suture or ligature in a sealed container that is impervious to microorganisms; exposing the packaged suture or ligature to at least about 1.5 Mrads; and removing the irradiated packaged suture or ligature from the gamma irradiation facility.

Dwg.0/9

ABEQ US 5621050 A UPAB: 19970522

A block copolymer comprising a first block having a **polyalkylene oxide** and a second block having epsilon -**caprolactone** linkages, the improvement to the second block comprising linkages subject to hydrolytic degradation in-vivo being randomly configured with the epsilon -**caprolactone** linkages.

Dwg.0/9

L19 ANSWER 57 OF 67 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN  
 ACCESSION NUMBER: 1993-236499 [30] WPIDS  
 DOC. NO. CPI: C1993-105339  
 TITLE: Copolymer particles useful for dyes, antifogging agent, etc. - comprises chemically fixed micelles derived from water-soluble component and crosslinked oleophilic component.  
 DERWENT CLASS: A14 A23 A25 A89 A96 B07 G06  
 INVENTOR(S): NAIR, M; YOO, Y  
 PATENT ASSIGNEE(S): (NAIR-I) NAIR M; (EAST) EASTMAN KODAK CO  
 COUNTRY COUNT: 6  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
EP 552802	A2	19930728	(199330)*	EN	10
R: DE FR GB					
CA 2087125	A	19930724	(199341)		
JP 05295120	A	19931109	(199349)		8
EP 552802	A3	19930901	(199508)		
US 5429826	A	19950704	(199532)		6

#### APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 552802	A2	EP 1993-100996	19930122
CA 2087125	A	CA 1993-2087125	19930112
JP 05295120	A	JP 1993-9030	19930122
EP 552802	A3	EP 1993-100996	19930122
US 5429826	A	US 1992-824418	19920123
		US 1993-138871	19931018

PRIORITY APPLN. INFO: US 1992-824418 19920123; US 1993-138871 19931018

AN 1993-236499 [30] WPIDS

AB EP 552802 A UPAB: 19931119

Copolymer particles are derived from chemically fixed micelles and (a) the

copolymer forming the micelles is an amphiphilic block or graft copolymer comprising a water-soluble component and an oleophilic component that can be crosslinked in an aqueous environment, and (b) the oleophilic component is crosslinked.

Pref. the water-soluble component is a poly(alkylene oxide), especially poly(ethylene oxide). Other useful water-soluble components include poly(2-ethyloxazolines), poly(saccharides) and dextrans.

USE/ADVANTAGE - A compsn. may have a continuous aqueous phase having in it the copolymer micelles. It is desirable to form such water-based compsns. since organic solvents often have an adverse environmental impact. There is also provided a product that can carry in an aqueous medium, and possibly deliver in a controlled manner, hydrophobic materials such as photographically useful material and biological agents. Thus, the crosslinked oleophilic centre or core of the chemically fixed micelle can have associated with it a variety of useful materials such as those referred to, especially dyes, antifogging agents, antistatic agents,

therapeutic

agents, diagnostic agents and contrast agents. Exemplary therapeutic agents are antibiotics, thrombolytic enzymes, insulin, growth hormone, adriamycin, interferon and acyclovir. The agent can be dissolved in the oleophilic component of the core, covalently attached to the core or in the form of a fine dispersion in the core. where the micelles contain biologically useful materials they can be used in injectable compsn. For this purpose the size should be 10-1,000 nm, pref. 20-300nm. In other applications the dimensions of the chemically fixed micelles can vary over a very wide range

Dwg.0/0

ABEQ US 5429826 A UPAB: 19950818

Compsn. comprises micelles composed of an amphiphilic block or graft copolymer comprising a water soluble component and oleophilic component. The micelles are chemically fixed by crosslinking the oleophilic component while the micelles are in an aq. environment. A drug is contained in the crosslinked oleophilic component.

Pref., the water soluble component is **polyalkylene oxide**, esp. polyethylene oxide. The oleophilic component is derived from monomers e.g. **caprolactone**, propiolactone or glutamic acid. The oleophilic component is crosslinked with a polyfunctional acrylate or styrene. The mol.wt. of the water soluble component is 1000-50000. The mol.wt. of the oleophilic component is 300-25000.

USE - Used for controlled drug delivery.

Dwg.0/0

L19 ANSWER 58 OF 67 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1992:201112 HCAPLUS

DOCUMENT NUMBER: 116:201112

TITLE: **Polyalkylene oxide**-amino acid  
copolymers as drug carriers and charged copolymers  
based thereon

INVENTOR(S): Zalipsky, Samuel; Bolikal, Durgadas; Nathan, Aruna;  
Kohn, Joachim Benjamin

PATENT ASSIGNEE(S): Enzon, Inc., USA

SOURCE: PCT Int. Appl., 97 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 4

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9200748	A1	19920123	WO 1991-US4797	19910708
W: AU, CA, HU, JP, SU				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE				
JP 05508879	T2	19931209	JP 1991-512668	19910708
PRIORITY APPLN. INFO.:		US 1990-549494	A	19900706
		US 1991-726301	A	19910705
		WO 1991-US4797	W	19910708

AB Copolymers of **polyalkylene oxides** and amino acids or peptide sequences are disclosed, which amino acids or peptide sequences have pendant functional groups that are capable of being conjugated with pharmaceutically active compds. for drug delivery systems and crosslinked to form polymer matrixes as hydrogel membranes. The copolymers can also be formed into conductive materials by combination with electrolyte salts. Thus, polyethylene glycol-lysine copolymer was treated with N-hydroxysuccinimide and dicyclohexyl carbodiimide. Cephadrine dissolved in a water-dioxane mixture was reacted with the derivatized polyethylene glycol-lysine copolymer to prepare a conjugate.

L19 ANSWER 59 OF 67 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 13

ACCESSION NUMBER: 1991:639807 HCAPLUS

DOCUMENT NUMBER: 115:239807

TITLE: Preparation of crystalline copolymers of p-**dioxanone** and poly(alkylene oxides), for use as surgical filaments

INVENTOR(S): Bezwada, Rao S.; Shalaby, Shalaby W.

PATENT ASSIGNEE(S): Ethicon, Inc., USA

SOURCE: U.S., 5 pp.  
CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5019094	A	19910528	US 1990-521212	19900509
PRIORITY APPLN. INFO.:		US 1990-521212		19900509

AB The title copolymers are prepared for surgical sutures. Poly(ethylene oxide-propylene oxide) was copolymerized with p-**dioxanone** by heating in vacuum, in the presence of Sn(II) octanoate, in toluene. The copolymer fibers show high in vivo absorption and tensile properties, and are more pliable than p-**dioxanone** homopolymer fibers.

L19 ANSWER 60 OF 67 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN

ACCESSION NUMBER: 1991-297554 [41] WPIDS

DOC. NO. CPI: C1991-128643

TITLE: **Biodegradable** plastic containing poly **glycolide** and high mol.weight polymer - is flexible and can be heat moulded to form a container or film, which shrinks to 6 per cent of its original size after 4 weeks in soil.

DERWENT CLASS: A18 A23

INVENTOR(S): MASUDA, T; MATSUDA, A; MURATA, K; YAMAZAKI, S

PATENT ASSIGNEE(S): (AGEN) AGENCY OF IND SCI & TECHNOLOGY

COUNTRY COUNT: 4

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
EP 450777	A	19911009	(199141)*		
JP 03290451	A	19911220	(199206)		
JP 03290461	A	19911220	(199206)		
US 5227415	A	19930713	(199329)		4
EP 450777	A3	19920520	(199331)		
JP 05077699	B	19931027	(199346)		3
JP 06023302	B2	19940330	(199416)		
EP 450777	B1	19960605	(199627)	EN	5
R: DE IT					
DE 69119966	E	19960711	(199633)		

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 450777	A	EP 1991-302168	19910314
JP 03290451	A	JP 1990-92817	19900406
JP 03290461	A	JP 1990-92816	19900406
US 5227415	A	US 1991-668153	19910312
EP 450777	A3	EP 1991-302168	19910314
JP 05077699	B	JP 1990-92817	19900406
JP 06023302	B2	JP 1990-92816	19900406
EP 450777	B1	EP 1991-302168	19910314
DE 69119966	E	DE 1991-619966	19910314
		EP 1991-302168	19910314

## FILING DETAILS:

PATENT NO	KIND	PATENT NO
JP 05077699	B Based on	JP 03290451
JP 06023302	B2 Based on	JP 03290461
DE 69119966	E Based on	EP 450777

PRIORITY APPLN. INFO: JP 1990-92816 19900406; JP 1990-92817 19900406

AN 1991-297554 [41] WPIDS

AB EP 450777 A UPAB: 19931118

**Biodegradable** plastic is claimed comprising a polyglycolide and a high mol. weight polymer selected from poly(3-hydroxybutyric acid), a copolymer of 3-hydroxybutyric acid and 3-hydroxyvaleric acid, polycaprolactone, polyglutamic acid, polyolefin, polyvinyl alcohol, **polyalkylene oxide**, cellulose acetate or their mixts. The polyglycolide is present at a level of 5-60% based on the weight of the combined polyglycolide and high mol. weight substance. A shaped article prepared from the plastic compsn. by heat-melting and then moulding is also claimed.

Pref. the polyglycolide has a mol. weight in excess of 500, pref. in the range of 800-200,000. The mol. weight of the high mol. weight substance should

be (disclosed) in the range 2000-5000000.

USE/ADVANTAGE - Compsn. has improved flexibility over polyglycolide used alone, and hence has good mouldability. Compsn. has good **biodegradability**, and even when a polyolefin is incorporated into the blend, its bulk can be significantly reduced and will disintegrate into fractions when left in the soil. @ (5pp Dwg.no.0/0) 0/0

ABEQ US 5227415 A UPAB: 19931116

**Biodegradable** polymer compsn. comprises a polyglycolide (mean Mn 500-2,000; 5-60 wt.%); one or more other polymers, e.g. a **polylactone** (95-40 wt.%) obtd. from 3-hydroxybutyric acid or its mixts. with 3-hydroxyvaleric acid; and opt. the usual additives.

USE - The prods. are moulded or extruded to produce **biodegradable** flexible containers and films.

Dwg.0/0

ABEQ JP 93077699 B UPAB: 19940103

Degradable plastic compsn. comprises melt mixt. consisting of 5-60 wt.% of polyglycolide and 95-40 wt.% of e.g. polyolefin, polyvinyl alcohol, **polyalkylene oxide** and cellulose acetate.

Polyglycolide has the number average molecular wt. in the range pref. 800-10000.

USE/ADVANTAGE - The compsn. is degradable and has good properties for moulding. The compsn. contg. either polyvinyl alcohol, **polyalkylene oxide** or cellulose acetate is completely **biodegradable**.

In an example, 10.0g of trioxane, 30ml of dichloromethane and 4m mole of chlorosulphone were mixed in carbon monoxide atmos. and heated to 180 deg.C. The reaction was carried out for 2 hrs. The content was washed with acetone 8.6g of acetone insol. polymer (polyglycolide having the mol.wt. of at least 1200) and 4.3g of acetone soluble polymer (polyglycolide having the mol. wt. of at most 1000) were prepd. 0.2g of acetone insol. polymer and 0.8g of highly densed polyethylene were mixed for the compsn.. (J03290451-A)

ABEQ EP 450777 B UPAB: 19960710

A **biodegradable** plastics composition comprising polyglycolide and a high molecular weight substance selected from poly(3-hydroxybutyric acid), a copolymer of 3-hydroxybutyric acid and 3-hydroxyvaleric acid, polycaprolactone, polyglutamic acid, polyolefin, polyvinyl alcohol, **polyalkylene oxide**, cellulose acetate and mixtures thereof, the polyglycolide being present in an amount of 10-60% based on the total weight of the polyglycolide and the high molecular weight substance.

Dwg.0/0

L19 ANSWER 61 OF 67 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 14

ACCESSION NUMBER: 1988:461464 HCAPLUS

DOCUMENT NUMBER: 109:61464

TITLE: Polyesters containing alkylene oxide blocks as drug delivery systems

INVENTOR(S): Casey, Donald James; Rosati, Louis; Jarrett, Peter Kendrick

PATENT ASSIGNEE(S): American Cyanamid Co., USA

SOURCE: Eur. Pat. Appl., 21 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 258780	A2	19880309	EP 1987-112279	19870825
EP 258780	A3	19880518		
EP 258780	B1	19930623		
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
US 4716203	A	19871229	US 1986-903797	19860905



US 4882168	A	19891121	US 1986-903801	19860905
AT 90952	E	19930715	AT 1987-112279	19870825
PRIORITY APPLN. INFO.:			US 1986-903797	19860905
			US 1986-903801	19860905
			EP 1987-112279	19870825

OTHER SOURCE(S): MARPAT 109:61464

AB A slow-release drug delivery system comprising a drug and an ABA triblock or AB diblock [A = degradable random copolymers of the cyclic ester of an  $\alpha$ -hydroxy acid and a second cyclic ester monomer; B = poly(alkylene oxide)] copolymer is described. These slow-release drug delivery systems may be used as implants or parenteral suspensions prepared from pharmaceutically and pharmacol. acceptable liquid vehicles. A reactor was charged with 54% **glycolide** and 36% **trimethylene carbonate**, the mixture polymerized in the presence of stannous octoate at 165° for 3 h, and the mixture polymerized with 10% poly(ethylene oxide) (mol. weight 8,000), producing a triblock polymer having glass transition temperature 10°, m.p. 53°, and intrinsic viscosity (after precipitation; CHCl<sub>3</sub> solvent) 0.33. This polymer (33%) was blended with 67% of a **glycolide-l-lactide** diblock polymer (40/60 ratio, intrinsic viscosity 0.50), 25% bovine somatotropin was incorporated, and the impregnated material ground to injectable consistency. This ground material was injected in Hypox rats which showed growth throughout a 10-day test period.

L19 ANSWER 62 OF 67 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN  
 ACCESSION NUMBER: 1989-044029 [06] WPIDS  
 DOC. NO. CPI: C1989-019426  
 TITLE: Lactone-modified poly ol used in polyurethane elastomer  
 mfr. - obtd. by reacting lactone with poly alkylene  
 oxide-dye in nitrogen atmos..  
 DERWENT CLASS: A25 A81 A82 G02 G03  
 PATENT ASSIGNEE(S): (DAIL) DAICEL CHEM IND LTD  
 COUNTRY COUNT: 1  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
JP 63317526	A	19881226	(198906)*		7
JP 2807880	B2	19981008	(199845)		4

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 63317526	A	JP 1987-151277	19870619
JP 2807880	B2	JP 1987-151277	19870619

## FILING DETAILS:

PATENT NO	KIND	PATENT NO
JP 2807880	B2 Previous Publ.	JP 63317526

PRIORITY APPLN. INFO: JP 1987-151277 19870619

AN 1989-044029 [06] WPIDS

AB JP 63317526 A UPAB: 19930923

The lactone-modified polyol is coloured and is obtd. by reacting 2-50 mols of 4-8C lactone with 1 mol of organic dye of formula R-(A-X)<sub>n</sub> (I). The reaction is performed at 50-230 (pref. 130-220) deg.C under normal

pressure pref. in nitrogen atmos.. Presence of 0.05-1,000 ppm of catalyst such as tetrabutyl titanate, tin octylate and stannous chloride accelerates the reaction. In (I) R = organic dye gp.; A = **polyalkylene oxide** or its copolymer. Alkylene segment of A has at least two carbon atoms. A has a mol. weight of about 44-1500 pref. about 80 to about 800; n = 1-6; X = -OH gp., -NH<sub>2</sub> gp. or -SH gp..

Pref. organic dye gp. is azo, anthraquinone or triaryl methane dye gp. The organic dye is N,N-dihydroxyethyl aniline or ethylene oxide adduct of m-toluidine. The **polyalkylene oxide** includes polyethylene oxide, polypropylene oxide, copolyethylene oxide, copolypropylene oxide, copolybutylene oxide and block copolymer in which a greater portion of A is polyethylene oxide, polypropylene oxide and/or polybutylene oxide. In case of azo dye, aromatic prim. amine and alkylene oxide are made to interact and resulting cpd. is coupled with diazonium salt of aromatic amine. The 4-8C lactone includes gamma-butyrolactone, epsilon **caprolactone**, delta-valerolactone, etc. and most pref. is epsilon-**caprolactone**.

ADVANTAGE - The lactone-modified polyol is useful as raw material for polyurethane elastomer, adhesive, synthetic leather, plastic foam, coating, etc. which have excellent resistance to water, oil and dye migration.

0/0

L19 ANSWER 63 OF 67 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN  
 ACCESSION NUMBER: 1988-093143 [14] WPIDS  
 DOC. NO. CPI: C1988-041748  
 TITLE: Formable epoxy coatings containing soft modifier resin - capable of substantial deformation without loss of continuity, adhesion or protective properties.  
 DERWENT CLASS: A28 A82 G02  
 INVENTOR(S): COLON, I; SMITH, D F  
 PATENT ASSIGNEE(S): (UNIC) UNION CARBIDE CORP  
 COUNTRY COUNT: 16  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
EP 262613	A	19880406	(198814)*	EN	13
R: AT BE CH DE ES FR GB IT LI NL SE					
AU 8778869	A	19880331	(198821)		
NO 8704030	A	19880418	(198821)		
BR 8704943	A	19880517	(198824)		
DK 8705042	A	19880327	(198826)		
JP 63159478	A	19880702	(198832)		

#### APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 262613	A	EP 1987-114048	19870925
JP 63159478	A	JP 1987-239126	19870925

PRIORITY APPLN. INFO: US 1986-911815 19860926

AN 1988-093143 [14] WPIDS

AB EP 262613 A UPAB: 19930923

A formable coating compsn. comprises an epoxy resin(pref. a DEGEBA resin with an epoxy equivalent weight of 450-6000); 1-50 weight% (pref. 5-30 weight%) of the

total resin of a modifier resin (pref. a **polyalkylene oxide** or a, pref. aliphatic, polyester, especially derived from epsilon-**caprolactone** or a polycaprolactone polyol or a polyester or polyether urethane) which is relatively soft in comparison to and is compatible with the epoxy resin and has (1) a reduced viscosity of 0.1-2 dl/g (pref. 0.2-1 dl./g) in tetrahydrofuran at 25 deg.C, (2) a Tg of -120 to 30 deg.C (pref. -100 to 0 deg.C), (3) a solubility in Cellosolve acetate at 25 deg.C of at least 1g per 100g solvent, (4) a molecular weight of 2,000 Othello 90,000; and opt. a particulate material (pref. zinc. pigment) and/or a crosslinker (pref. a melamine resin).

ADVANTAGE - This coating compsn. is formable, i.e. it is able to withstand physical operations to the substrate (e.g. rolling, bending, stamping, cutting) without significant damage to the continuity and adhesion of the coating, and thus the protective properties of the coating are preserved.

0/0

L19 ANSWER 64 OF 67 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN  
 ACCESSION NUMBER: 1988-065604 [10] WPIDS  
 CROSS REFERENCE: 1987-334637 [47]; 1987-362148 [51]  
 DOC. NO. NON-CPI: N1988-049693  
 DOC. NO. CPI: C1988-029337  
 TITLE: Lubricating coatings for surgical filaments - containing polyalkylene oxide block or random copolymers with glycolic acid ester and tri methylene carbonate linkages.  
 DERWENT CLASS: A23 A25 A96 F06 G02 P34  
 INVENTOR(S): CASEY, D J; JARRETT, P K; LEHMANN, L T; ROSATI, L; WANG, D W  
 PATENT ASSIGNEE(S): (AMCY) AMERICAN CYANAMID CO  
 COUNTRY COUNT: 15  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
EP 258749	A	19880309	(198810)*	EN	24
R: AT BE CH DE ES FR GB GR IT LI LU NL SE					
US 4857602	A	19890815	(198941)		10
CA 1279737	C	19910129	(199110)		
EP 258749	B1	19920617	(199225)	EN	7
R: AT BE CH DE ES FR GB GR IT LI LU NL SE					
DE 3779838	G	19920723	(199231)		

#### APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 258749	A	EP 1987-112087	19870820
US 4857602	A	US 1986-903798	19860905
EP 258749	B1	EP 1987-112087	19870820
DE 3779838	G	DE 1987-3779838	19870820
		EP 1987-112087	19870820

#### FILING DETAILS:

PATENT NO	KIND	PATENT NO
DE 3779838	G Based on	EP 258749

PRIORITY APPLN. INFO: US 1986-903791 19860905; US 1986-903798

19860905; US 1986-903799 19860905

AN 1988-065604 [10] WPIDS

CR 1987-334637 [47]; 1987-362148 [51]

AB EP 258749 A UPAB: 19931115

A surgical filament (I) having a coating comprising (i) a cpd. (II), or (ii) a block copolymer (III) having at least one **polyalkylene oxide** block, or (iii) a random copolymer (IV) having 25-75 weight% of glycolic acid ester linkages and remaining linkage of at least **trimethylene carbonate**. Cpd. (II) is of formula:  $x = \text{at least } 2$ ;  $R' = \text{an alkaline-earth metal ion or radical}$ ; and  $R'' = \text{up to } 22\text{C alkyl having at least } 12\text{C in the backbone}$ .

USE/ADVANTAGE - The bioabsorbable coatings are especially useful for surgical sutures and ligatures. They act as a lubricant and improve the tie-down properties of the filaments in both wet and dry states. The coatings are thermoplastic and can be applied to filaments by conventional solution or thermal techniques.

Dwg. 0/0

ABEQ DE 3779838 G UPAB: 19930923

Suture coating comprises a random copolymer contg. 25-75 (pref. 45-65, esp. 50) wt.% of glycolic ester linkages, the remaining linkages comprising **trimethylene carbonate**. The copolymer has a glass transition temp. ( $T_g$ ) at or below ambient temp..

Pref. the inherent viscosity of the polymer is 0.5-3 dl/g (measured on a 0.5% soln. in hexafluoroacetone sesquihydrate) the  $T_g$  is 0-5 deg.C and the polymer has an in-vivo absorption time in animal tissue of less than 1 year. Opt. the coating may also contain a stearyl lactylate of formula (I) as lubricant additive ( $x = 2$  or more; and  $M = \text{alkaline earth metal}$ ).

USE/ADVANTAGE - The compsn. is esp. for coating bioabsorbable multifilament suture, e.g. composed of polylactide, polyglycolide, **lactide-glycolide** copolymers, copolymers of **glycolide** and **trimethylene carbonate**, poly(p-dioxanone), poly(alkylene oxalate) and copolymers of **glycolide** and alkylene oxides, etc.. The coating allows easier knot tying (improved knot run-down) and reduced tissue drag for multifilament sutures. The copolymer is readily soluble in organic solvents such as  $\text{CHCl}_3$  and  $\text{CH}_2\text{Cl}_2$  (thereby allowing coating of the suture from soln.), but is not soluble in body fluids. It contains sufficient **glycolide** to enable it to adhere to **glycolide**-contg. sutures and also to be bioabsorbed. The copolymer is amorphous, has a low  $T_g$ , and has a high enough mol. wt. to have a relatively good tensile strength.

ABEQ EP 258749 B UPAB: 19930923

A surgical filament having a coating comprising a compound of the formula: (I) wherein  $x$  is 2 to 4,  $R'$  is selected from the group consisting of an alkaline-earth metal aluminium and zinc ion or radical, and  $R''$  is an alkyl group having 12 to 22 carbon atoms in the backbone.

ABEQ US 4857602 A UPAB: 19930923

Bioabsorbable coating for a surgical suture or ligature comprises a diblock copolymer having a (I) **Polyalkylene oxide** block and (II) a glycolic acid ester block contg. **trimethylene carbonate** linkages. Copolymer has m.p.h less than 65 deg.C and glass transition temp. less than 20 deg.C, and is soluble in methylene chloride and/or chloroform.

Block (I) comprises 5-25 wt.% of copolymer and has mol. wt. 4000-30000, and is derived from a **polyalkylene oxide** terminated on 1 end by a (1-6C)alkyl and on the other by OH.

ADVANTAGE - Has improved tie down properties w.r.t. multifilament absorbable suture or ligature on wet and dry state.

L19 ANSWER 65 OF 67 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN  
 ACCESSION NUMBER: 1988-014157 [02] WPIDS  
 CROSS REFERENCE: 1988-065625 [10]  
 DOC. NO. CPI: C1988-006219  
 TITLE: Di block and tri-block copolymers which are typically bio  
 absorbable - contain one or two blocks containing glycolic  
 acid ester and tri methylene carbonate links, and one  
 block of poly oxy alkylene oxide.  
 DERWENT CLASS: A25 A96 B07  
 INVENTOR(S): CASEY, D J; JARRETT, P K; ROSATI, L  
 PATENT ASSIGNEE(S): (AMCY) AMERICAN CYANAMID CO  
 COUNTRY COUNT: 18  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 4716203	A	19871229	(198802)*		9
ZA 8706635	A	19880309	(198822)		
JP 63118326	A	19880523	(198826)		
HU 52945	T	19900928	(199045)		
CA 1283988	C	19910507	(199123)		
EP 258780	B1	19930623	(199325)	EN	16
				R: AT BE CH DE ES FR GB GR IT LI LU NL SE	
DE 3786309	G	19930729	(199331)		
ES 2058081	T3	19941101	(199444)		

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 4716203	A	US 1986-903797	19860905
ZA 8706635	A	ZA 1987-6635	19870904
JP 63118326	A	JP 1987-220523	19870904
EP 258780	B1	EP 1987-112279	19870825
DE 3786309	G	DE 1987-3786309	19870825
		EP 1987-112279	19870825
ES 2058081	T3	EP 1987-112279	19870825

## FILING DETAILS:

PATENT NO	KIND	PATENT NO
DE 3786309	G Based on	EP 258780
ES 2058081	T3 Based on	EP 258780

PRIORITY APPLN. INFO: US 1986-903797 19860905; US 1986-903801  
 19860905

AN 1988-014157 [02] WPIDS

CR 1988-065625 [10]

AB US 4716203 A UPAB: 19990603

Diblock copolymers AB have a block (A) consisting of glycolic acid ester and **trimethylene carbonate** linkages, and a block (B) of **polyalkylene oxide**. Triblock copolymers A'B'A' useful in nonfibre form have a block (B') of **polyalkylene oxide**. (B) is derived from a linear polyoxyalkylene oxide, having one 1-6C alkyl end-gp. and one OH end-gp. by removing the H atom from the OH gp. (B') is obtd. by removing H atom from both terminal OH gps. of a linear polyoxyalkylene diol. Both (B) and (B') may be derived from (i) a



homopolymer of ethylene oxide (e.o.) or (ii) a block or random copolymer of e.o. and a cyclic ether of formula (I) or (II), or (iii) a block or random copolymer of (I) with a second cyclic ether from (II);  $x = 2-9$ ;  $y = 1-9$ ;  $R = 1-6C$  alkyl.

The biodegradable copolymers pref. contain 5-25 weight% of **polyalkylene oxide** and have  $M_n$  4,000-30,000, and inherent viscosity 0.25-1.50 dl/g (0.5% weight/volume in  $CHCl_3$  at 30 deg.C). (A') is as (A).

USES/ADVANTAGES - The di- and tri-block copolymers are pref. biodegradable. They are useful as coatings and/or lubricants e.g. for braided multifilament materials such as absorbable sutures, in both wet and dry state (to improve tie-down properties); also as hydrogels in medical or surgical devices or in pharmaceutical compsns. They are capable of being completely degraded and eliminated from the body. Being thermoplastic they can be applied by conventional solution or thermal techniques.

Dwg.0/0

ABEQ EP 258780 B UPAB: 19931116

A slow release drug delivery system comprising a drug being a biologically active material having a molecular weight of more than 1000 and an ABA block polymer, wherein the (B) block is a poly(ethylene oxide) and the blocks (A) are comprised of degradable random copolymers of (1)

**glycolide** and (2) **trimethylene carbonate**.

Dwg.0/0

L19 ANSWER 66 OF 67 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN

ACCESSION NUMBER: 1985-257696 [42] WPIDS

DOC. NO. CPI: C1985-111524

TITLE: Condensate from halogen-free aliphatic poly ol ether amine - and polyfunctional reactant, as retention agent in paper production.

DERWENT CLASS: A97 D13 F09

INVENTOR(S): BENN, O; GRAMM, G; MUSZIK, J; SCHROER, W

PATENT ASSIGNEE(S): (FARB) BAYER AG

COUNTRY COUNT: 9

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
EP 158247	A	19851016	(198542)*	GE	49
R: CH DE FR GB IT LI SE					
DE 3413567	A	19851024	(198544)		
FI 8501407	A	19851012	(198603)		
US 4673729	A	19870616	(198726)		
EP 158247	B	19880107	(198802)	GE	
R: CH DE FR GB IT LI SE					
DE 3561335	G	19880211	(198807)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 158247	A	EP 1985-103840	19850329
DE 3413567	A	DE 1984-3413567	19840411
US 4673729	A	US 1985-717410	19850329

PRIORITY APPLN. INFO: DE 1984-3413567 19840411

AN 1985-257696 [42] WPIDS

AB EP 158247 A UPAB: 19930925

A new agent contains as active component a N-containing condensate (claimed) obtd. by reacting (A) aliphatic polyetheramines, free from halogen, containing connected polyether segments, with no amino gps. within these segments, (B) cpds. which are polyfunctional w.r.t. amino gps., opt. in presence of (C) **polyaminopolyamides** and/or polyalkylenepolyamines. The amount of B is such as to give a water-soluble polycondensate, with viscosity 100-1000 mPa.s at 25 deg.C in 25% aqueous solution

Pref. reactant (A) is prepared by reacting (a) omega-poly chloropolyol ethers with functionality 1.9-3.1 mols. Cl/mol, and (b) polyalkylene polyamines.

USE/ADVANTAGE - is increasing the retention of fibres, fillers and pigments, and accelerating de-watering in paper production, and as flocculant in processing waste water from paper production by filtration, sedimentation and flotation. The agent is not sensitive to interfering agents during paper production Use of ethyleneimine monomer is avoided.  
0/0

ABEQ EP 158247 B UPAB: 19930925

Agents for increasing the retention fibres, filters and pigments and for accelerating drainage in papermaking and as flocculating agents in the working up of effluents from papermaking by filtration, sedimentation and flotation, characterised in that they contain, as the active component, one or more nitrogen-containing condensation products which can be obtained by reacting A) aliphatic, polyol-ether-amines which are free from halogen groups, contain cohesive polyether segments, carry no amino groups with these segments and are obtained from omega-chloropolyol-ethers and polyalkylene polyamines in a molar ratio of chlorine in the omega-chloropolyol-ether to polyalkylene polyamine of 1:0.95 to 1.30 with B) compounds which are polyfunctional towards amino groups, from the groups comprising (I) in which  $R_1 = H$  or  $CH_3$ , x and y are identical or different and denote the number 0 or 1, m denotes a number from 1 to 50 and n denotes a number from 0 to 50, and/or d) polyalkylene-polyamines of the general formula (II) alpha,omega-alkyldihalides, halogenohydrins, epihalogenohydrins, bis-epoxy compounds, chloroformic acid esters and glycidyl ethers of **polyalkylene oxides** and compounds of the formula (III) if appropriate in the presence of C) **polyaminopolyamides** and/or D) polyalkylene polyamines such a quantity of component B) being employed that water-soluble polycondensates are formed which are free from self-**crosslinking** groups and have a viscosity of 100 to 1000 mPa.s at 25 deg.C in 25 per cent strength aqueous solution.

ABEQ US 4673729 A UPAB: 19930925

A condensation product is obtd. by reacting (A) an aliphatic polyol-ether-amine free from halogen, contg. cohesive polyether segments free from  $NH_2$  and obtd. by reaction (a) an omega-polychloropolyolether with a functionality of 1.90-3.10 mol of Cl/mol with (a) a polyalkylenepolyamine (PAP)  $H_2N-(CH_2-CH(R)-(CH_2)_y-NH)_m-H$  (b) a PAP  $H-(NH-CH_2-CH(R))_m--(1)-((CH_2)_y-CH(R)-NH)_n-H$ , (c) a PAP  $Y-((CH_2-CH(R)-CH_2-NH)_p-H)_q$  and/or (d) an amine  $R'-N((CH_2-CH(R)-CH_2-NH)_r-H$  with (B) an alpha,omega-alkyldihalide, epihalogenohydrin, halogenhydrin, bis-epoxy cpd. chloroformic acid ester, glycidyl ester or **polyalkylene oxide** or a bifunctional alkylating agent  $Cl-(CH_2-CHOH-CH_2-N+(R)_2)a-CH_2-CHOH-CH_2-Cl(Cl)-a$ . Sufficient (B) is used to obtain a water soluble condensate whose 25% aq. soln. has a viscosity 100-1,000 mPas at 25 deg.C .. In the formulae each R is H or Me; each m is 1-50; n is 0-50; p is at least 1; q is at least 2; R' is 1-18C alkyl opt. substd. by  $NH_2$  or OH; each a is 1-20; a is 1-3; Y is O,S; divalent (cyclo)alkyl, aralkyl or aryl contg. OH or SH.

USE/ADVANTAGE - To increase the retention of fibres, fillers and pigments and for the acceleration of drainage in papermaking; as flocculating agent in the working up of papermaking effluents by filtration, sedimentation or floatation, the additive is insensitive to troublesome substances.

L19 ANSWER 67 OF 67 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN  
 ACCESSION NUMBER: 1982-04496J [48] WPIDS  
 TITLE: Pressure sensitive adhesive compsn. - comprising amine terminated poly alkylene oxide neutralised sulphonated thermoplastic polymer dissolved in non-reactive solvent.  
 DERWENT CLASS: A25 A81 G03  
 INVENTOR(S): AGARWAI, P K; MAKOWSKI, H S  
 PATENT ASSIGNEE(S): (ESSO) EXXON RES & ENG CO  
 COUNTRY COUNT: 1  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 4359547	A	19821116	(198248)*		9

PRIORITY APPLN. INFO: US 1981-292192 19810812

AN 1982-04496J [48] WPIDS

AB US 4359547 A UPAB: 19930915

A pressure sensitive adhesive compsn. comprises 5-25 g of (a) amine terminated **polyalkylene oxide** neutralised sulphonated thermoplastic polymer dissolved in 100 ml of (b) non-reactive solvent. The amine terminated **polyalkylene oxide** of (a) is of formula (I), where  $x+y=5-200$ .

The thermoplastic polymer of (a) is obtd. by direct addition polymerisation of alpha-olefins such as styrene, vinyl toluene, t.-butyl styrene, alpha-methyl styrene, chlorostyrene, vinyl cyclohexane, 1,6-hexadiene; (meth)acrylates such as methyl methacrylate; vinyl acrylates such as vinyl acetate; vinyl halides such as vinyl chloride; nitrile-containing monomers such as (meth)acrylonitrile; cyclic monomers such as oxycyclobutane, THF, trimethylene sulphide, lactones, e.g. **caprolactone**; aldehydes such as formaldehyde or acetaldehyde; vinyl alkyl ethers and amide monomers such as acrylamide. The compsn. may be extended with a filler and/or oil.

The presence of (a) results in compsns. of reduced melt- and solution viscosities allowing the use of higher solution concns.